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THE ANALYST;  
A  
QUARTERLY JOURNAL,  
OF  
SCIENCE, LITERATURE,  
NATURAL HISTORY, AND THE FINE ARTS.

EDITED BY W. HOLL, Esq., F.G.S.,

AND

NEVILLE WOOD, Esq.,

(AUTHOR OF "BRITISH SONG BIRDS," "ORNITHOLOGIST'S TEXT BOOK," &c.)



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## NOTICES TO CORRESPONDENTS.

AN Essay "On Circumstantial Evidence," by W. Wills, Esq.; "Observations on Swainson's Views on Nomenclature;" and Mr. Levison's paper "On Phrenology and Physiognomy," in our next.

We shall be happy to comply with the request of P. Q., by inserting directions for pre-serving objects in the several branches of Natural History, if correspondents possessing a thorough practical knowledge of the art will favour us with communications on the sub-ject.

We have been reluctantly compelled to omit, from want of space, an account of the pro-ceedings of the Herefordshire, Warwickshire, and Norwich Natural History Societies, the Liverpool Literary and Scientific Institution, and the Birmingham Philosophical Institu-tion. The report of the Manchester Mechanics' Institution reached us too late for inser-tion in the present number, but we will give in our next an epitome of the proceedings of this society, which, in point of importance, ranks the first in the Provinces.

A parcel awaits "Musicus" at our Publishers.

Many thanks to Mr. S., of Twickenham, for his letter; we believe he will find it most convenient to procure *The Analyst* through his usual bookseller.

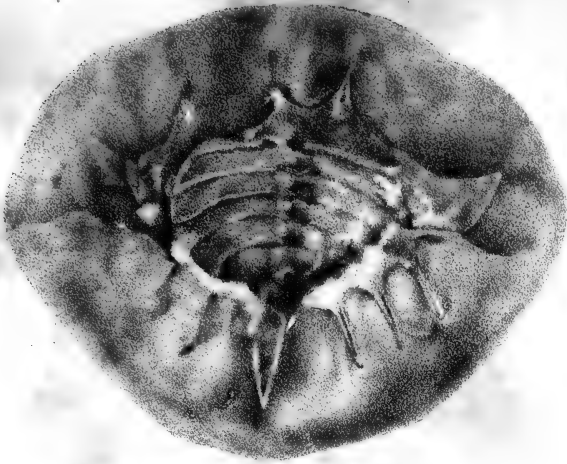
In reply to the several communications we have received relative to the difficulty of procuring *The Analyst*, we have only to observe that if the London booksellers will apply to Messrs. Simpkin, Marshall, & Co., they will be invariably supplied with copies.

ERRATA.—Page 52, note †, line 13, for scimus read "sumus." Page 53, note †, add "See Coleridge's *Life of Bishop Fisher*;" and likewise at page 61, after the marked quota-tion.

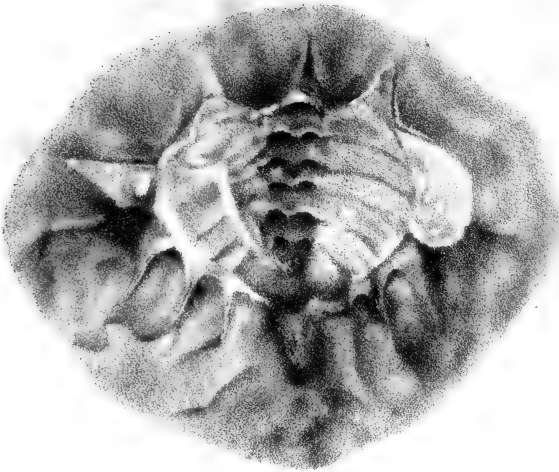




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1837.

N. H.  
General. S.

# THE ANALYST.

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## ON ELEMENTARY EDUCATION.

BY JAMES SIMPSON, ADVOCATE.\*

**ELEMENTARY** or primary education is that training of the faculties and communication of knowledge which ought to be imparted to every human being, from birth to the age of fourteen, without distinction of sex, rank, or condition in life. In no branch of human affairs have notions been more limited and erroneous than in this. The cause is, want of the requisite knowledge of the human constitution, bodily and mental, the improvement and right direction of which are, in its widest sense, sound education. Intellectual education solely, and that most defective in kind and degree, has hitherto engrossed the attention of the teacher of the young, while moral education is a novelty in society. Yet Locke and Milton, above a century and a half ago, conceived and expressed the opinion that moral training is paramount in importance, and ought to take the precedence of intellectual, which is chiefly useful as aiding the other more important branch in its grand object, the improvement and ultimate perfection of human happiness. Educationists are beginning to miss this vital branch of instruction: they find no institutions for it until infant schools were established. These have demonstrated its reality as a part of education, and, yet more—its practicability.

But the omission of moral education is only one symptom of that disease of ignorance on the great subject which afflicts society.

\* Author of the "*Philosophy of Education*, with its application to a system of popular education as a natural system." Second Edition.



That ignorance itself must be removed. The human being, to be educated, must be understood in all the parts of his constitution, and his education—which is but another term for the improvement of that constitution—will follow in the necessary relation of cause and consequence. A correct physiology of body, and a true analysis of mind, must then be the very basis of a sound system of education. The first has been wellnigh attained, but the analyses of mind with which we have been presented by various and conflicting metaphysical systems are clearly inadequate to the desired end. These have all mistaken the *modes* in which the mind acts, for the faculties, the operations, and the powers of mind. Thus *attention*, *perception*, *conception*, *consciousness*, &c., were long taught as faculties, while they were terms for the mere working of faculties. To other and more fortunate philosophers it occurred to go in quest of *powers to manifest* attention, perception, conception, &c. They found these powers in the practical philosophy of every-day life—in the pages of the biographer, the novelist, the dramatist, and the poet; and observed that such writers owe their popularity to the just and true pictures of human nature which the adoption of these very impulses and faculties, as belonging to man, gave to their works. The same philosophers have connected these faculties with the physiology of the brain. Educationists, however, without inquiring into the truth of this alliance, have adopted the faculties themselves, and have thereby thrown a degree of light on the subject of education—have given it a system and a practical application, which have made it, compared with what it was, even in the best period of the older philosophy, another, a better, and a higher thing.

The teacher ought intimately to know and handle this new and powerful implement—this sound philosophy of human nature. He should never lose sight of the physical, animal, moral and intellectual nature of his pupil. He should have a competent knowledge of the structure and functions of the various parts of his body, so as to know how to train its powers and increase their vigour, as a condition of health and longevity. He should enumerate and know the uses of his animal tendencies, as well as their abuses—vice and crime. He should be familiar with the nature and functions of his moral feelings, and have reliance on the influence of their right guidance to human happiness. Finally, he should know and distinguish all the intellectual powers, both for the acquisition and use of knowledge. The body is divided into parts or systems; namely, the system of the bones, the muscles, the blood-vessels,

the absorbents, the brain and nerves, the lungs, the stomach and viscera, &c. The structure and functions of all these ought to be familiar to the teacher, and in an elementary way explained to his pupils. The conditions of their sound and healthy action—in other words, of bodily health and comfort—should be made plain; and the miseries arising from the abuse of any of them.

Studies like these were thought to belong to medical education alone. This is a grievous error, and one which is visited by much severe suffering. In ignorance of what they do, multitudes ruin their health, and if they are not hurried to early graves, drag on a life of wretchedness. These consequences would not follow; human beings would have longer life, would cease to see one half of their offspring cut off before two years of age, and would be relieved from much suffering, by very simple lessons on the structure and functions of the human body. “I do not mean that every one shall become his own physician,” said a writer on the subject, “but I would save every man from being his own destroyer.”

The mind—that portion of man which feels and thinks—is composed of, or rather acts by, distinct primitive faculties. These may be classed as follows:—Feelings and intellect, inferior feelings and superior feelings, knowing faculties, reflecting faculties. There is no better definition of a faculty of mind than a power to perceive, to reflect, or to feel in a particular way. The faculties are instinctive and innate, and may be called—even the highest of the reflecting powers may—human instincts. The inferior feelings are so called because their objects are lower, and because they are common to man and the inferior animals. They include the propensities necessary to the existence, continuation, safety, and physical comfort of the species. Such are the instincts of love of life, of food, of sex, of the young, courage to repel danger, love of property, of self, of estimation, of resentment, and caution or fear.\* All these faculties are given to man for *use*, and, as God’s work, are good. The *abuse* of them essentially constitutes vice and crime. This is the law in the members which wars against the law in the mind. Moral education will therefore *regulate*, but not *repress* these feelings; will confine them to their own useful and necessary sphere, but will prevent them from going beyond it.

\* The reader will perceive that the faculties here enumerated are those which are admitted to be natural and innate in man by the phrenologists, although, for the benefit of those who have not as yet turned their attention to the subject, the terms of ordinary parlance are adopted by Mr. Simpson, instead of the phrenological nomenclature.—Eds.

The superior feelings include the moral sentiments by excellence ; those which lead man to love his neighbour, to respect his neighbour's rights, and to love, obey, and adore his God ; in terms, benevolence, justice, and veneration or piety. The exercise of these three feelings constitutes natural ethics. Actions are good or evil according as they agree or disagree with their dictates. It constitutes, not less, the ethics of christianity, which, as Bishop Butler has said, is a republication of the ethics of Nature—is the law in the mind with which, according to the apostle, the law in the members wars, but to which is given, both by Nature and Scripture, a supremacy and control, the exercise of which is justice. This, in scriptural language, is “to do justly, to love mercy, and walk humbly with God.” Moral education, then, will exercise and improve these three high controlling powers, and thereby elevate the character. To the higher feelings likewise belong firmness or endurance of purpose, hope, ideality, for the beautiful and sublime, the ludicrous, and imitation. Both the inferior and superior feelings are emotions, and are also desires leading to acts for their gratification.

Intellectually the knowing faculties acquire knowledge. They include the five senses, the power of observing existencies and events, or things that *are* and things that *happen*, under one or other of which categories all our knowledge must be found. Intellectual education will improve the senses, as the informants of the mind of certain qualities of matter, and cultivate and start the observing powers with the knowledge of the external world and its changes. Lastly, the reflecting powers compare and deduce, or reason upon the knowledge with which the knowing faculties are stored. Every human faculty has its relative object in external Nature, to the quality and constitution of which it is beautifully adapted.

From the sketch now given of man's constitution in body and mind, it will at once appear that the teacher of youth should know and communicate to his pupil a knowledge of the relations which exist between that constitution and the creation in which man is placed. He will find that creation is in the most harmonious relations to man's nature—that as light is related to the structure of the eye, air to the ear, to the lungs, and the blood, so are human appetites and sentiments to their respective objects. The three-fold division of elementary education into physical, moral, and intellectual, offers itself at once to the mind when satisfied of the truth of the foregoing observations. The three departments will proceed

together, beginning with the very commencement of our being. Physical education should actually commence before birth, prospectively, in the temperate and healthful habits of the mother, the avoidance by her of stimulants, physical and moral, the tranquil exercise and engagement of all her faculties. Much evil results from an opposite course, and great is the responsibility. From the moment of birth, that the being may possess a vigorous frame of body and the concomitant sound health—without which every species of moral and intellectual exercise is cramped and frustrated—he must be subjected to such processes of management, and afterwards trained to such habits of food, muscular exercise, cleanliness, and respiration of fresh air, as have been ascertained to conduce to health and strength.

Moral education will, as above stated, commence at the same time with physical. For the sake of himself and society, man must be habituated, from the dawn of consciousness and feeling, to the moderate activity and proper regulation of the inferior feelings of our nature; and gradually to the due exercise of the moral sentiments of mercy, justice, and truth towards his fellow beings, and veneration towards his Almighty Creator and the objects of his faith. In time, as his intellectual faculties develope themselves, he ought to be instructed in the theory and impressed with the higher functions of that morality in which he has been previously trained and exercised.

Intellectual education, beginning almost at birth, in the proper direction of the senses and observing powers, will proceed elementarily; in exercising the human powers and storing them with that knowledge of Creation and the nature of things which all sane human beings were intended, by the very endowment of their minds with the necessary powers, to acquire.

Physical, moral, and intellectual education, then, for all ages, from birth to fourteen years, may be said to have three periods, when different degrees of it will be applicable; namely, cradle education, infant education, and juvenile education.

**CRADLE EDUCATION** is new in practice, and new even as a term. The nurse must here be the educator; and it concerns society and human happiness more than is at first apparent that nurses, including mothers, should be fitted, more than they have ever been, for this delicate and important office. Many an infant is sent to its grave by ignorance in its nurse of those simple organic laws necessary to its safety and comfort, which may be easily known and practised. A large proportion of the children born in this country

die before two years of age. This was not intended by Nature ; it does not happen in the inferior tribes, and must arise from some grievous error or ignorance in man. Food, air, exercise, temperature, sleep, ablutions, skilfully managed, ought to produce better results. Many a child, moreover, is ruined in temper and disposition in an ignorant nurse's arms. If it be naturally irascible, it is injudiciously fretted and provoked ; if petulant and revengeful, it is told to beat the floor on which it falls, the table it has run against, or any person or thing that comes in its way. It is carefully taught to scold, and stamp, and rage, and it is pacified by having its wide-open mouth stuffed with sugar. By this last act another lesson of evil, and one which is a deep source of human woe, is inculcated ; it is made a selfish politician before it can utter an intelligible word : it grows up violent, revengeful, and artful, turning upon and rending most cruelly the repentant parent, who, changing her plan, in vain endeavours to whip out what she herself put in, and which, far beyond her management, will vent itself upon a really injured society.

Nurses must, therefore, be educated to train all the human feelings, and their earliest manifestations ; to remove the causes which excite the inferior, to divert from their paroxysms when these chance to occur ; never exhibiting their activity in their own manner or expression of countenance, which ought always to be mild and cheerful ; to direct the earliest dawn of observation to its most attractive objects ; and last, not least, to regulate the child's habits in food, air, exercise, and sleep, so as to nourish both body and mind. At two years of age, or as soon as the child can walk alone, he, or she, should be entered at an infant school. This should consist of not fewer than forty or fifty pupils, in order to obtain the advantage of a variety of dispositions for mutual exercise in the little community. The school-room should be large, lofty, and well-ventilated and warmed, and the value of all these advantages early and constantly impressed upon the pupils. There they should find a teacher and his wife—for no kind of colleagues are better fitted for co-operation—quick, intelligent, fond, children-loving, cheerful, and amusing ; with whom it is impossible to connect fear, or anything but love and attachment ; for on these two last the whole system is based. In a roomy play-ground should be arranged all the means of exercise, by safe and judicious gymnastics, such as the circular swing, &c. Refinement and taste will be cultivated by accustoming the pupils to flower borders, fruit trees, and even ornaments, which they will respect, and not, as is now done by chil-



dren, deface and destroy. In this play-ground—which is in truth the school, the school-room being a mere accessory—the intercourse should be left as free as is consistent with the most careful observance by the teacher, who will watch all the minutest out-breakings of selfishness and passion, or failures in justice, truth, and honesty. Into all such matters, however trifling, the teacher should minutely, patiently, and temperately inquire ; distinguish, in the presence of all the school, the right from the wrong, instead of the present practice, in nursery quarrels, to knock together the heads of the combatants, and there finish the matter. By this last rude and indiscriminating practice all moral distinctions are confounded, and the same mode of arranging, or rather deranging, human affairs in after life perpetuated. In the play-ground, where fruit, and flowers, and ornaments are respected by the youngest child, pets—the more helpless the better—should be kept, and gentleness and kindness to animals, with an utter absence of cruelty, practised and enforced.

The intellect should be trained by an early and minute exercise of the faculties enumerated above, by observing material objects and their qualities ; in other words, the **REAL SYSTEM**—the most radical revolution which has yet taken place in intellectual education—should be commenced and be steadily pursued as long as the pupil remains at school. Of the first suggestion of the real system, Pestalozzi had the glory, for there is no higher term for its merit. Deshayé has made it familiar by his *Lessons on Objects*, which should be the text-book of every infant-school teacher and every mother of a family. It is divided into seven series, with from fifteen to twenty lessons in each, and conveys a thorough knowledge of material objects in their external features, qualities, and uses, and last, what is for after study, their chemical and mechanical changes. For example, the first lesson is on the aspect and obvious qualities of glass. The substance is put into the pupil's hands, its transparency, brittleness, &c., made evident to him, and these words pronounced, read, and spelled by him as exhibited in printed cards, or written with chalk on a black board. By this means, reading, and ultimately writing, is incidentally and almost insensibly attained. In the second lesson something is exhibited different from glass, though resembling it in one or two qualities : for example, India rubber. It is not brittle, but tough ; not transparent, but opaque, though it is elastic. It is also combustible and odorous ; all which terms are learned as words incidentally ; so that by the time the whole seven series are finished, the child can read. The first four series are enough for the infant school ; the remaining

three go into more complicated qualities and combined relations, and are, therefore, more adapted for the advanced or juvenile school.

Besides a knowledge of objects, with their qualities and uses, much useful information may be communicated, such as easy arithmetic by tangible objects, the simpler geometrical figures, the elements of Geography, and even History, with an endless variety of amusing and instructive matters, which may all be selected to be of value as preparatory for more advanced education, and future life.\* But let it never be forgotten, that all this may and must be attained without TASKING or FATIGUING the infant pupil. The following is an extract, on this vital point, from Chambers' *Infant Education* :—

“ This section ought not to be concluded without a caution, the omission of which might cause infant education to become an irremediable evil instead of good to its innocent objects. We learn from physiological observations, too numerous and accurate to admit of doubt, that the brain, the instrument of the mind, is in infancy imperfectly developed, unconsolidated, and subject, in its own substance, to serious disease, as well as to be the cause of other diseases, *by being overtaken*. Now this overtaking is an error into which infant-school teachers are very apt to fall in the intellectual department of the training. They cannot, they suppose, give enough of lesson exercise, or advance their pupils too fast and too far ‘ *in their learning*.’ Parents, they say, expect it, and have not learned to appreciate anything else ; and to their ignorant prejudices they are forced to yield. This is a grievous, often a fatal error. We refer to what has been said in our introductory matter, on the *secondary* importance of intellectual to moral, and even to physical, training, at that early age. It ought to be secondary in the time allotted to it and the attention bestowed upon it. It should not task the memory, or have in it the slightest character of *labour* for any of the faculties. Conversant with *objects* more than *words*, it should be little more than a better directed and more systematic exercise of the senses and the simple observing powers—those the child would engage in if left to himself. It ought all to be amusement, not study or exertion. If the knowledge is gained, it should be as easily gained as if picked up spontaneously by the way. It may be

\* I may here recommend, as guides in infant education, Wilderspin's work on the subject, and the number of Chambers' Educational Course, entitled *Infant Education*, equally suited to the infant school and the nursery.

asked, how does such light study agree with the numerous lessons arranged and referred to in this and the previous section? Our answer is two-fold. A small and easy portion of these lessons is given at any one time; for the total is the work of four years; and there is none of them which may not be imparted by insensible degrees, without approaching to labour or going beyond amusement. In most infant schools, the *in-door* occupations, we think, bears too large a proportion to the *out*, or, in bad weather, to the in-door recreation. The common practice is an hour's lessons and a quarter of an hour's play, alternately.\* We should wish to see the children, for a much larger proportion than this, in the play-ground. However alternated, **HALF THE TIME OF SCHOOL OUGHT UNQUESTIONABLY TO BE SPENT IN PLAY.** There is no time for moral exercise in the brief intercourse of ten minutes' play, cut short by the hand-bell. The teacher, too, is insensibly led to devote himself to the intellectual teaching as primary, and to slur over the moral and physical exercise as secondary. This he has another temptation to do; the intellectual is the only *exhibitable* training. The teacher's ambition to *show off* the children's attainments, which, to gratify his own vanity, perils the bodies and minds of his pupils, ought to be unsparingly put down by the directors of an infant-school,† and

\* Such an allotment of their time cannot fail to be more or less prejudicial to children so young and tender. A better plan would undoubtedly be exactly to reverse the periods here alluded to. The excess of in-door study in infant schools has called forth much just reprehension from the opposers of such institutions.—EDS.

† This observation is equally applicable to the system adopted in seminaries for adults, where half-yearly exhibitions are “got up” at the sacrifice of the pupil's health, and to the total neglect of a sound and useful education adapted to his wants in after life. In a majority of schools, the pupils are almost *exclusively* occupied, for one or two months, in committing to memory Greek or Latin plays, or entire eclogues of Virgil, who would gaze with vacant wonder if asked to enumerate the component parts of the air they breathe—to explain the motions of the heavenly bodies—or elucidate the most simple and beautiful of the organic laws. But this *classical* display of erudition answers the purpose for which it is intended: first, it gratifies the vanity and excites the *astonishment* of the parents, who, in most cases, have long since buried *their* crude and imperfect knowledge of the classics in oblivion; secondly, it tends to render them blind or indifferent to the *deplorable ignorance* of their children in *every other branch of knowledge*; and, thirdly, it ministers to the ambitious views of the master, who considers his fortune made if *one tithe* of his pupils distinguish themselves at the University. The film is now happily removed from the eyes of the intelligent portion of the community, and this barbarous system of “our fore-fathers” is about to be abandoned, in spite of the vigorous efforts that have been made by bigoted and narrow-minded advocates to uphold it.—EDS.

forsworn by the teacher himself. There are too many *Books for Infants*. Infants require no books. Good books for *infants' teachers* are what are wanted; and these will tell them that they cannot give the children too much of the play-ground and its exercises, mingle too much with them there, or too much observe, and regulate, and guide, the dispositions which they manifest in their play-ground intercourse. We recommend to any infant-school teacher to be possessed of a copy of the work of an American writer, Dr. Amariah Brigham, *On the Influence of Mental Cultivation and Excitement upon Health*. In nearly every word of that admirable little work we cordially concur. No teacher can read it, and continue *blindly* to overtask the infant brain. It is a work which, properly understood, will not discourage infant schools, but prevent their abuse and perversion—will not supersede that early training of the dispositions without which they never will be trained at all, but will guard that paramount object from being rendered of less effect, by a course injurious, and often destructive, to the mind itself. We also recommend another American work, Dr. Charles Caldwell's *Thoughts on Physical Education*, a discourse delivered to a convention of teachers in Lexington; and Dr. Andrew Combe's *Physiology as connected with the Preservation of Health*, and also his *Physiology of Digestion*.\* These four works should be the constant companions of every infant-school teacher. It may here be briefly noticed that Dr. Brigham justly holds that the exercise of the *moral faculties or feelings* is unattended with the dangers attending excessive intellectual labour, provided always that over-excitement and every thing that rouses selfish passions, such as rewards offered to emulation, or punishments addressed to fear, are carefully avoided."

The foregoing extract is followed, in the same treatise, by a section entitled, "Prevention of prejudices, fallacies, tyrannies, cruelties, unfairnesses, selfishnesses, bad habits, &c." The section is thus introduced:—"There is no part of the infant system more important than the field for watchfulness and exertion indicated by this title. There are no greater moral evils, or causes of evil, than that title enumerates. It is by judicious infant training alone that they can be warded off, and society defended from their conse-

\* We beg to add our tribute of praise to the excellence and practical utility of the productions of the three talented physicians here mentioned; those who have not perused these works are not a little in arrear of the times, and should, without loss of time, become acquainted with their contents.—Eds.

quences. It is not meant here to specify every prejudice, bad feeling, or bad habit, which obstructs and deranges human affairs. A few only are enumerated as examples. Others will occur to an enlightened and moral teacher: and there are no points in the whole range of his labours where his reiterated lessons and illustrations will do so much good. He ought to vary the manner in which he presses this preventive moral teaching upon his pupils; he should attract them by anecdotes and examples; lead them by precepts, interrogatories, exercises; and ever and anon renew the subject during their total attendance at school, till habits of thinking and acting, the reverse of the unfavourable here referred to, shall have taken fast hold of their minds. The benefit to another generation of steady and unceasing attention to this one department of the infant school teacher's duties is incalculable. Here, then, follows a sub-section upon each of the following moral evils; and their anticipation and prevention is recommended in the very threshold of education. The love of war, and passion for military glory—national self-sufficiency and antipathy—religious bigotry and intolerance—false sayings—self-sufficient and false judgment—the spirit of contradiction—exaltation of every thing connected with self—conceited deprecation—pride and vanity defeat their own end—jealousy, grudging, envying, detracting—obstructing and injuring competitors—want of candour—tyranny, annoying the imbecile, provocation—derision—frightening—practical jokes, witches, ghosts, &c.—superstitions—the gambling spirit—cruelty and antipathy to animals—destroying inanimate things—stone-throwing—nuisances and nastinesses—want of consideration for others, and of civility—evil speaking and gossiping—pleasure in exercising the benevolent and just sentiments—prudential attentions and maxims—temperance.”

Exercise on all these points for four years, when the mind is pliant and youthful confidence strong, would work a change on society, even in one generation, almost beyond the calculation of those who view that society only as it is now disfigured.

We have reason to know that the practical working of well-conducted infant schools is entirely satisfactory. In the appendix to the first and second reports of the Edinburgh Model Infant School, published in 1832 and 1835, are a series of incidents which occurred in the school and in the intercourse of the infants, which demonstrate that kindness to companions and to animals, and honesty and truth are practically exemplified, not in a few instances, but generally; and that cleanliness and refinement, respect for ornament,

attachment to the teachers, and other excellent dispositions, are established as the characteristics of the place. Numerous letters from the parents speak, in terms of unbounded gratitude, of the change produced in their children, and of the comfort and pleasure they enjoy in their society when they return from school, instead of the wearisomeness of their former company. Objections to the infant education system, all of which were founded on ignorance of its nature, are now fast disappearing. I have not heard of any objections worth more than enumeration.\* The system, it is said, tasks the infant brain before it is consolidated, and will send the precocious, more especially, to early graves. I have already given a solemn caution that the infants should never be tasked; but that all their intellectual exercises should be light amusement, and instruction as an accessory. The objection is reasoning from the abuse against the use of such institutions. Dr. Brigham's work was laid hold of by the opponents of infant schools and by their supporters at one and the same time; by the former as an instrument wherewith to demolish infant education, by the latter as a guide to regulate and improve them.

Again, we have from many persons an admission that infant schools suit the labouring classes very well, but that no mother above that rank would or should part with her infant to be trained in a public school. She is the natural guide of the infant's first feelings, and conductor of its early education. Now what, in most cases, will the mother do? She commits the child, for many more hours than are demanded by the infant school, to a nursery-maid—a creature utterly without education, and often with the very worst habits. Even if the mother kept the child beside herself, the most intelligent and excellent mothers will be the first to admit that they cannot systematically train their own nursery morally. The mother wants the element of numbers, a variety of dispositions. This alone is an answer to the objection which admits of no reply. She cannot give that unremitting and systematic attention which infant education requires; she *must* delegate; and to whom can she do so more beneficially than to the enlightened, mild, and practised conductors of that well-regulated nursery—as it was called by Lord Jeffrey—an infant school; where warmth, air, exercise, health,

\* Dr. Caldwell, in his excellent *Thoughts on Physical Education*, expresses himself averse to the infant school system. We think, however, that his views on this subject proceed from a want of a practical knowledge of such institutions, and of their aim and objects.—Eds.



safety, are all in better hands than they can be at home.\* I would advise the formation of an infant school of the middle and higher classes in each neighbourhood, to which the children may easily be sent and sent for, while their nurse's hands would be liberated for some hours for other avocations. To this course things will come when prejudice gives way, because it will then be seen that they *must*.

At six years old the pupil will join the juvenile school, and remain for the rest of the period of elementary education, namely, till fourteen at least, and a year or two longer if convenient or necessary. Here the *real* system, and the verbal incidentally, will be continued; all instrumentary branches will be taught; useful knowledge fitting for life inculcated; and the elements of science practically acquired. The sum total of elementary education during this period is so admirably concentrated in the prospectus of the educational course of books† now in course of preparation by those benefactors of their species the Messrs. Chambers, of Edinburgh, that I cannot do better than extract the following passage from that document:—

“ 1. Reading, at least in his own tongue; 2. writing; 3. arithmetic; and 4. grammar, etymology, and composition. That he may enter life with a mind informed respecting that Creation of which he is a part, and that society of which he is a member, and qualified as well as may be to perform the part which will fall to his lot, he must be acquainted with at least the elements of the following kinds of knowledge: 1. Geography, or the surface of the earth; 2. Geology, or the structure of the earth; 3. Botany, or the vegetable productions of the earth; 4. Zoology, or the animals of the earth; 5. Meteorology, the phenomena of the atmosphere; 6. Chemistry, the composition of the substances of the material world, and the changes which are produced by the action of these substances upon each other; 7. Natural Philosophy, the mechanical powers and relations of the material world; 8. Geometry, the sci-

\* We fear that, at present, many mothers who admitted the truth of this would be unwilling to part with their *darlings* out of their house, just at the time when their maternal feelings—phrenologically, Philoprogenitiveness—experience the most intense gratification in nursing, perhaps spoiling, their beloved offspring.—Eds.

† Seven numbers are already published, and the demand for them has been very great. They are—*Infant Education, Introduction to the Sciences, Rudiments of Chemistry, Elements of Plane Geometry, English Language and Literature, History of Britain and Ireland, Elements of Drawing and Perspective.*

ence of measurement ; 9. Astronomy, the relation of our globe to the other component parts of the vast system of Creation ; 10. Anthropology, including Phrenology, or the physical, moral, and intellectual nature of man, with reference to the preservation of health and the attainment of happiness ; 11. Political Economy, the production and distribution of national wealth ; 12. the history of nations and countries, ancient and modern, especially those in which the pupil is most interested—of their literature, eminent men, resources, &c.”\*

By means of the *Incidental Method*, several branches can be taught together, not only without hindering, but aiding each other. Grammar may be taught incidentally with reading, while reading is taught incidentally with realities. Rewards and punishments will be found unnecessary under such a system. These are addressed to the inferior and selfish feelings, and are the greatest possible impediments to moral training. Perhaps the rewards are the worse of the two. The punishment degrades the punished individual, but the reward excites the selfishness of the whole school. In the old system of tasks of useless words, and tedious and repulsive objects of study, these stimulants were indispensable ; but when education shall suit and, in suiting, delight every faculty, they will remain a solecism in education, and scarcely be historically believed.

Objections and incredulity may be expected here, as well as on the subject of infant schools. It will be asked, is it intended or expected that the education now described shall ALL be given by fourteen years of age ? It is intended and expected, I answer, because it has been accomplished. Much is done, and without overtasking, at the infant school. At six years old the pupils leave a well-conducted infant school much better informed and more accomplished in the instrumentary branch of reading than we find them, under the old system, at ten or even twelve years of age. This is great gain. But the juvenile school endures eight years, and no one accustomed to see the waste of time and, what is more, of mind, under the old errors, is in a condition to estimate the

\* To this list, although we are aware that little more than a *taste* for the fine arts could be attained by the inmates of infant schools, we would add Music, both vocal and instrumental, as tending materially to refine and elevate our nature, and, if properly taught, opening a wide and never-failing source of pleasure to its cultivators. In this department the *Singing Master* (see *Analyst*, v., 334) will be the best guide. Nor should Poetry, Painting, and Sculpture, by any means be overlooked, excepting where the talents requisite for such pursuits are decidedly deficient.—EDS.

amount and the quality of training and knowledge which may be given in these precious years. Those who say that to teach science at that early age is to give a mere smattering, judge from what would at present be the result if the listless victims of Latin and Greek were to have science superadded to their other tastes, with the short portion of time which would be spared for it on the one hand, and the superficial attention which school-boys habitually pay to anything that is taught by their present instructors. But when the dead languages, and all other languages but the vernacular, are rigidly excluded from disturbing the important years of elementary education—when study from the infant-school upwards has been made, not irksome, as it now is, but delightful, as it it may be and ought to be, divested of fear of punishment, divested of the distracting selfishness of honours, prizes, and captivating the faculties with the rich food which a wise and benevolent Creator intended for them, and, be it marked, especially suited to them in the natural activity of their energies, we shall hear no more of smattering, but shall see even middling talent master of all the useful knowledge, as concentrated in the prospectus already quoted, by fourteen years of age, and fitted for ulterior education and the business of life—a striking contrast to the Latinists and Grecians at the same age, who, for all useful purposes in life, are like creatures dropped from the moon.\*

The elements of Chemistry and Mechanics have been practically taught to the youth of both sexes in Edinburgh, by Dr. Boswell Reid. The experiment has been made on boys taken indiscriminately from the different schools, and young ladies from an extensive ladies' seminary; and, although the study was engaged in over and above the ordinary pursuits of the pupils, the results were completely satisfactory, and give promise of still greater success when scientific studies shall have a more important and systematic place in elementary education.

Again, it is asked is this thorough elementary education to be given to *ALL*, without modification according to different turns of mind and degrees of talent? I answer, *TO ALL*, because all have the faculties to which it is addressed, and all were intended to use these faculties in gaining an acquaintance with the creation in

\* Until views like these be adopted, and, what is more, acted upon by every one engaged in the instruction of youth, we see no reasonable prospect of attaining that success in education which can alone effect a sensible improvement in the human race.—*EDS.*

which they are placed. An average capacity for this purpose is possessed by all persons who are not mentally defective. No doubt the acquisitions will be made in different degrees, according to aptness to learn and retentive power to remember ; but all will gain something, and the general intelligence will be advanced. Ulterior education will take its character from the line in life which it is intended the pupil shall follow. This ought, of course, to be chosen according to the particular bent of mind—in other words, the relative power of particular faculties.

ARE FEMALES to be educated to the same extent as males? My answer is by another question—Why not? The faculties must determine the education, and, unless it can be shown that these differ in the male and female human being, the question is answered in the affirmative. Nay, it concerns society even more that those who are the first imparters of knowledge and trainers of faculties should be themselves well-informed and thoroughly trained. But I would go further—I would have the two sexes educated *together*. While no evil can result from this—for they never can be more safely together—much good in mutual encouragement and refinement will be attained. The female pupils as well as the males will, moreover, have the benefit of the best male instruction, females assisting and communicating to their own sex needle-work and other strictly female branches. This plan has been pursued, in Lancasterian and other large schools of both sexes, with marked success.

Last of all, it will be asked, is it intended that a complete elementary education shall be given to all classes, including the WORKING CLASSES?—It is so intended. An elementary education, equally extensive in its quantity and excellent in its quality, should be given to the child of the day-labourer as to that of the peer ; and till the time shall come that this is realized, the condition of the working classes will not be improved, for this alone will enable them to improve their own condition. But, it will be replied, how can the working classes continue their children at school till they are fourteen?—They need, and will have, their labour earlier. In the unfrugal and intemperate habits which want of education renders so prevalent among that class, every aid to the scanty means is laid hold of eagerly by the half-starving families, and the labour of the very infant is put in requisition. This is a most injurious course, arising from a deep-seated social vice. "The young should not be engaged in regular labour till fourteen: neither their muscular frame nor nervous energy is in the required condition. The

parents ought, by their own exertions—so far assisted by their children as in no respect to interfere with their school hours, by far the most important to them, and the best preparative for future prosperity and happiness—to be perfectly competent to support the whole family ; if they are not, by all their exertions, and by the utmost frugality and temperance, there is social disease somewhere, but there is none that may not be discovered and removed. I am merely pointing out the best course, not modifying my views to meet prejudices, or giving way to prevailing errors. No child, till fourteen, ought to be for a less period in school every day than four hours ; and there would remain sufficient time for that degree of moderate and wholesome labour which the parents ought reasonably to demand.

The silly objections to *over-educating* the working classes, as it is called, are now only urged by the uneducated. Instead of indisposing them to labour, the great lesson which a knowledge of man and his relation to Creation will teach them, that labour is no evil and no degradation, and, above all, that it is called for by Nature and necessity, will render them more willing as well as more intelligent labourers, will induce them to abridge their own hours of labour, and employ their leisure in the enjoyment of the superior faculties, intellectual and moral, which would not have been given them if they had not been intended for human happiness.\* Some vital changes in social institutions are called for to allow an improved education to produce all its beneficial effects ; but these are changes from ignorant and, therefore, hurtful errors to cover truth, and truth is ever attended with blessings in its practical application. Education will facilitate those changes even by that partial diffusion which, in spite of vicious institutions, will follow from a natural over the established system. There will long be a force disturbing the progression, drawing back the machine, but there will be two steps onward for one retrograde ; gain will be made on the whole, and in a future and more favoured generation it will be all gain together.

I must reserve the vital subject of the **TRAINING OF TEACHERS**—of proper normal establishments—for another number of the

\* This is precisely the state to which we should like to see the labouring classes brought,—namely, to a proper sense of their own rights and importance. To such a condition they will assuredly come, and the arrival of it will be materially hastened by the spread of knowledge amongst all classes, despite the narrow-minded opposition which vainly endeavours to maintain arbitrary superiority.—Eds.

*Analyst.* I would only here remark that the immensely improved elementary education advocated in the foregoing pages will call teachers of very superior qualifications into that field of labour, and elevate the character of that most useful class of men to the rank it ought to hold, namely, that of a fourth learned profession. It is despised now, because, from its intellectual poverty, it is not worthy of a higher estimation.

I have thus sketched, much more briefly than the important subject merits, a **SYSTEM OF ELEMENTARY EDUCATION**. A plan for its realization—in the establishment of a minister of public instruction, a board of commissioners, subordinate boards, normal schools, and an infant and juvenile school in every parish of the empire—may yet afford matter for much future discussion.

[Our thanks are due to our talented correspondent for the able and impartial manner in which he has treated the important subject of the above paper. Were views such as these generally admitted, and universally practised, the benefit to future ages would be incalculable. We feel convinced, with Mr. Simpson, that schools, on however good a general plan, must fail in their objects unless the teacher has a thorough knowledge of human nature—in other words, unless he be a good phrenologist. His learning may be great, his intentions good, but still he may fail as an instructor; and we hold that schools and instructors will be alike useless and pernicious as long as any one set of faculties is cultivated to the partial or entire exclusion of all others. In fine, to be aware what *are* the primitive faculties that belong to man, and hence to know what studies are fitted for him, **PHRENOLOGY** must be our guide, *our sure and never-failing instructor*.—Eds.]

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## REMARKABLE PLANTS FOUND GROWING IN THE VICINITY OF BIRMINGHAM IN THE YEAR 1836.

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“Qualis apes æstate novâ per florea rura  
Exercet sub sole labor.”—VIRG., *Æneid*, lib. i., 430.

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As one of the objects of the *Analyst* is to register and make known to the public the personal observations of individuals in the various branches of Natural History, perhaps a few notices of the habitats of some of the less common of our native plants found growing, during the year 1836, in the neighbourhood of Birming-



ham, may not be without interest to many of its readers, and especially to those who, in common with the writer, are fond of the study of indigenous Botany.\*

I need scarcely observe that the extensive changes which have taken place in Birmingham and its environs during the last forty years, or since Dr. Withering published the last edition of his *Systematic Arrangement of British Plants*, make it an object of some interest to ascertain which of the localities of plants that gentleman's long residence near this town enabled him to point out still exist, and which modern improvements have destroyed.

Birmingham Heath and Washwood Heath—where, in Dr. Withering's time, the rambles of the botanist were rewarded by *Hypochaeris glabra*, *Vaccinium oxycoccos*, or *Eriophorum vaginatum*—now exist as *heaths* only in name. Houses, canals, and the murky steam engine, cover the place where "once the wild flower smiled;" the busy hum of men has long succeeded "the buzzing wing of the drowsy Dorr," even in spots as yet unconscious of the *march of bricks and mortar*. The labours of agriculture have swept away almost all the gleanings of the botanist: the Common Potato (*Solanum tuberosum*) now occupies, far more profitably, the place of its noxious congeners, *Solanum dulcamara* and *S. nigrum* (the two Nightshades); while the slender Sea Cabbage (*Brassica oleracea*) has been doomed, "'neath the gardener's plastic art," to undergo more metamorphoses than ever Proteus tried or Ovid sang.

The crowding host of Savoy, Cauliflower, and "Cabbages of low degree," up to that greatest among the Anakim of culinary vegetables, "the Cæsarean Cow Cabbage," oppress the groaning soil,—

"In square battalion rang'd, line after line  
Successive;"

\* It may be as well to notice that the united committee of the Birmingham Botanical and Warwickshire Floral Societies, at a meeting held in the early part of the present year, offered a prize medal for "the best *hortus siccus* of native plants, correctly named, with their local habitation, collected within ten miles of Birmingham, from the 1st of August, 1835, to the 1st of August, 1836." Having myself previously formed the design of botanizing the neighbourhood of Birmingham, this notice was an additional excitement to exertion; and I was enabled to collect, though the season was on the whole an unfavourable one, about three hundred and twenty phænogamous plants and ferns, for which collection the botanical committee awarded me the prize medal.

and every clod of earth within a circle of not less than twenty miles in circumference, if it can do nothing better, must “*maintain its Cabbage*.”

Even the “stubborn glebe” of Moseley Common has been partially subdued by the ploughshare, and waving fields of grain proclaim the victory ; and the gouty pedestrian who starts from the centre of the busy circle to take a country walk, and enjoy the wildness of Nature, long before he regains the haven of “his own elbow chair,” will find that it is “no joke.”

But, great as is the change around us, it is a change which not even the most enthusiastic lover of Nature can for a moment behold with regret ; it has probably promoted the happiness of thousands of human beings ; and if the man who has caused one blade of grass to grow where none grew before, may justly be said to have conferred a substantial benefit on his species ; surely the numerous agricultural improvements—to say nothing of the commercial—which, during the last half century, have been made in the neighbourhood of Birmingham, cannot be contemplated without feelings of the highest pleasure.

As, however, the obvious consequence of this alteration of the natural face of the country has been to render useless for the purpose of reference eight out of every ten of the localities assigned to plants by Dr. Withering and the authors of the *Botanist's Guide*, I trust no apology is necessary for attempting to point out to the collecting botanist the “local habitations” of some of the rarer native plants found growing wild in the vicinity of Birmingham during the last summer ; and I shall notice each species in the order of the natural arrangement, as simplified in the recently published *Catalogue of British Plants*, by Professor Henslow, of Cambridge ; without, however, following in all cases the titles or terminology of the orders as adopted in that work.\*

## DIVISION I.—VASCULARES, OR COTYLEDONEÆ.

### CLASS I.—DICOTYLEDONES.

ORDER, RANUNCULACEÆ.—*Thalictrum flavum*, Yellow Thalick ; bank of the Tame, below Hamstead Mill ; Perry Barr. *Anemone nemorosa*, Wood Anemone ; a field at Upper Saltley, crossed by a

\* *A Catalogue of British Plants, arranged according to the Natural System, with the Synonyms of De Candolle, Smith, Lindley, and Hooker.* By the Rev. J. S. Henslow, M.A., Professor of Botany in the University of Cambridge. Second Edition, pp. 61. Cambridge, 1835.

foot-path into Garrison Lane. Of the Genus *Ranunculus* I found nine species, few of them rare in this neighbourhood:—*Ranunculus flammula*, Lesser Crowfoot; ditches in Garrison Lane, and Coleshill Pool. *R. hederaceus*, Ivy-leaved Crowfoot; old gardens near the Pershore road; meadows near Vaughton's Hole. This plant, though rare in some localities, is very common around Birmingham.

ORDER, NYMPHÆACEÆ.—*Nuphar lutea*, Yellow Nuphar; in a lane leading from Nechell's Green to Washwood Heath.

ORDER, PAPAVERACEÆ.—*Papaver dubium*, Smooth-headed Poppy; a bank near Aston Church. *Chelidonium majus*, Common Celandine; a bank near Perry Barr Park.—(CLASS XIII., Linn.)

ORDER, FUMARIACEÆ.—*Corydalis lutea*, Yellow Corydalis; an old wall in Edgbaston Lane. *Fumaria officinalis*, Common Fumitory; bank at Aston, and Nechell's Green.—(C. XVII., Linn.)

ORDER, CRUCIFERÆ.—*Nasturtium terrestre*, Marsh Cress; bank of the stream near Duddleston Mill. *N. amphibium*, Amphibious Cress; canal near the Aqueduct, Erdington road. *Arabis thaliana*, Common Araby; a dry bank at Saltley. *Cardamine amara*, Bitter Lady's-smock; edge of a stream in a meadow near Moseley Park. *C. hirsuta*, Hairy Lady's-smock; bank in Garrison Lane, near the Brick-kilns. *C. pratensis*, Meadow Lady's-smock; ditches near the same place. *Lepidum campestre*, Mithridate Pepperwort; a bank at Washwood Heath, also near Castle Bromwich.—(C. XV., Linn.)

ORDER, RESEDACEÆ.—*Reseda luteola*, Dyer's Rocket; plentiful among the coal pits, near the road-side between Oldbury and Dudley.—(C. XI., Linn.)

ORDER, POLYGALACEÆ.—*Polygala vulgaris*, Common Milk-wort; Coleshill Bog.—(C. XVII., Linn.)

ORDER, SILENACEÆ.—*Silene inflata*, Bladder Campion; Erdington road; Saltley, common.

ORDER, ALSINACEÆ.—*Arenaria rubra*, Purple Sand-wort; road side near Bordesley Green; canal bridge at Aston. *A. serpyllifolia*, Thyme-leaved Sandwort; a dry bank at Aston. *A. trinervis*, Plantain-leaved Sandwort; a shady lane near the Rail-road at Alum Rock, Upper Saltley. *Cerastium aquaticum*, Water Chickweed; on rubbish near Moseley Park.—(C. X., Linn.)

ORDER, MALVACEÆ.—*Malva moschata*, Musk Mallow; Edgbaston Lane, opposite the gates of Moseley Park: not rare around Birmingham.—(C. XVI., Linn.)

ORDER, HYPERICACEÆ.—*Hypericum pulchrum*, Upright St.-John's-Wort; a meadow near Moseley Park. *H. quadrangulum*,

Square-stalked St.-John's-Wort ; same place. *H. humifusum*, Trailing St.-John's-Wort ; a bank at Castle Bromwich ; Garrison Lane—(C. XVIII., Linn.)

ORDER, GERANIACEÆ.—*Geranium dissectum*, Jagged-leaved Crane's-bill ; a bank at Little Bromwich. *Erodium cicutarium*, Hemlock Storkbill ; a dry bank about two hundred yards beyond Aston Mill.—(C. XVI., Linn.)

ORDER, LINACEÆ.—*Linum catharticum*, Purging Flax ; Moseley Common.—(C. V., Linn.)

ORDER, OXALIDACEÆ.—*Oxalis acetosella*, Wood Sorrel ; bank in Garrison Lane.—(C. X., Linn.)

ORDER, FABACEÆ.—*Genista tinctoria*, Dyer's Greenwid ; a meadow near Selly Hall Park ; a lane at Elmdon, near the Hall. *Cytisus scoparius*, Common Broom ; a bank at Saltley. *Ononis arvensis*, Hairy Rest-harrow ; Saltley, corner of the Coleshill road. *Melilotus officinalis*, Yellow Melilot ; road side, Bordesley Green. *Lotus corniculatus*, Bird-foot Trefoil ; a bank near Harborne Church.—(C. XVII., Linn.)

ORDER, ROSACEÆ.—*Rubus idæus*, Raspberry Bramble ; waste ground behind Aston Church, near the river ; in a hedge at Upper Witton. *Potentilla nemoralis* (*Tormentilla reptans*, Eng. Flora), Creeping Tormentil ; Edgbaston Lane, near Avern's Mill.—(C. XII., Linn.)—*Alchemilla vulgaris*, Common Lady's-Mantle ; a meadow about five hundred yards beyond Vaughton's Hole, crossed by a foot-path to Moseley Park. *Sanguisorba officinalis*, Great Burnet ; same place as *A. vulgaris*, also in a meadow near Small Heath Turnpike ; common in meadows on the Edgbaston side of Birmingham.—(C. IV., Linn.)

ORDER, ONAGRACEÆ.—*Epilobium parviflorum*, Small-flowered Willow Herb ; near King's Norton. *E. tetragonum*, Square-stalked Willow-herb ; at the back of Mr. Rotton's house, Sparkbrook.—(C. VIII., Linn.)—*Circæa lutetiana*, Common Chantrelle ; a shady lane leading from Bromwich Old Forge to Sandwell Park, the seat of the Earl of Dartmouth.—(C. II., Linn.)

ORDER, LYTHRACEÆ.—*Lythrum salicaria*, Purple Lythrum ; side of the Tame, Perry Barr.—Variety *Foliis ternis, caule hexagono*, Three-leaved Lythrum ; near the same place.—(C. XI., Linn.)

ORDER, UMBELLACEÆ.—*Enanthe fistulosa*, Common Dropwort ; brook-side, Yardley. *Torilis infesta*, Spreading Hedge-parsley ; near Oldbury. *Chærophyllum temulentum*, Rough Cicely ; near Alum Rock, Upper Saltley.

ORDER, CAPRIFOLIACEÆ.—*Viburnum opulus*, Common Guelder; Coleshill Bog.—(C. V., Linn.)

ORDER, RUBIACEÆ.—Of the genus *Galium* I found six species :—*Galium mollugo*, Hedge Bedstraw ; a bank near Sandwell Park. *G. saxatile*, Heath Bedstraw ; Castle Bromwich Heath. *G. cruciatum*, Crosswort Bedstraw ; a meadow at Saltley, near the railroad. *G. verum*, *G. palustre*, and *G. aparine* ; the other three species are common.—(C. IV., Linn.)

ORDER, VALERIANACEÆ.—*Valerianella olitoria* (*Fedia*, Eng. Fl.), Corn Salad ; a lane near Aston Church. *Valeriana dioica*, Marsh Valerian ; a meadow about five hundred yards beyond Vaughton's Hole, crossed by a foot-path to Moseley Park. *V. officinalis*, Common Valerian, variety  $\beta$  of the *English Flora* ; on a high bank at Sturchley-street, near King's Norton.—(C. III., Linn.)

ORDER, COMPOSITÆ.—*Centaurea scabiosa*, Greater Knapweed ; border of a wheat-field at Perry Barr. *Carduus nutans*, Musk Thistle ; banks at Aston and Nechell's Green. *C. pratensis*, Meadow Thistle ; the bog below Coleshill Pool. *C. eriophorus*, Woolly-headed Thistle ; grounds near Dudley Castle. *Tragopogon pratensis*, Yellow Goat's-beard ; new road to King's Norton, three miles from Birmingham. *Lactuca muralis* (*Prenanthes*, Eng. Flora), Ivy-leaved Wall-lettuce ; back of Church's steam carriage manufactory, Bordesley Green. *Hieracium sabaudum*, Broad-leaved Hawkweed ; a bank at Bordesley Green. *H. umbellatum*, Narrow-leaved Hawkweed ; abundant in a lane leading from the Bee Hive tavern to the Golden Cross ; not rare around Birmingham. *Conyza squarrosa*, Ploughman's Spikenard ; near Dudley Castle. *Tanacetum vulgare*, Wild Tansy ; banks of the Tame, near Hamstead Mill. *Senecio sylvaticus*, Mountain Groundsel ; a high bank in Garrison Lane.—(C. XIX., Linn.)

ORDER, CAMPANULACEÆ.—*Jasione montana*, Annual Sheep's-bit ; near Sutton Wood, also in a lane at Aston leading to the Golden Cross. *Campanula trachelium*, Nettle-leaved Bell-flower ; plentiful in the shady lanes between Perry Barr and Great Barr.—*C. patula*, Spreading Bell-flower ; along the right bank of the turnpike road between Well's Green and Elmdon, five and a half miles from Birmingham, in profusion ; I have found it no where else in this neighbourhood.—(C. V., Linn.)

ORDER ERICACEÆ.—*Erica tetralix*, Cross-leaved Heath ; Coleshill Bog, Sutton Coldfield.—(C. VIII., Linn.)

ORDER, APOCYNACEÆ.—*Vinca major*, Greater Periwinkle ; road from Castle Bromwich to Coleshill Heath. *V. minor*, Lesser Peri-

winkle ; near the back of Church's steam carriage manufactory, in the lane leading to Alum Rock, Upper Saltley.—(C. V., Linn.)

ORDER, GENTIANACEÆ.—*Chlora perfoliata*, Perfoliate Yellowwort ; the grounds about Dudley Castle.—(C. VIII., Linn.)

ORDER, BORAGINACEÆ.—*Echium vulgare*, Viper's Bugloss ; plentiful on the ruins of Dudley Castle. *Symphytum officinale*, Common Comfrey ; near the Aqueduct in the Erdington road, near the gate of Perry Barr Park. *β. S. patens*, Purple Comfrey, a bank behind Perry Barr Park. *Lycopsis arvensis*, Small Lycopsis ; a bank at Castle Bromwich ; at Saltley, corner of the road to Castle Bromwich. *Myosotis versicolor*, Variegated Scorpion-grass ; a dry bank at Nechell's Green, near Aston. *Cynoglossum officinale*, Common Houndstongue ; a bank at Castle Bromwich.

ORDER, SOLANACEÆ.—*Atropa belladonna*, Deadly Dwale ; left hand side of the court yard of Dudley Castle, close to the wall, August 3, 1835. July 26, 1836, I found the only two plants I know of, cut off close to the root, but fresh shoots were springing from the old stems. *Verbascum thapsus*, Great Mullein ; Sandwell Park. *V. nigrum*, Dark Mullein ; plentiful in a lane leading from Tower Hill farm, Perry Barr, into the old Walsall road.—(C. V., Linn.)

ORDER, SCROPHULARIACEÆ.—*Digitalis purpurea*, Purple Foxglove ; banks at Castle Bromwich. *Linella\* cymbalaria*, Ivy-leaved Toad-flax ; on the ruins of the keep at Dudley Castle. *Melampyrum pratense*, Yellow Cow-wheat ; Sutton Park, near the Waggon road. *Bartsia odontites*, Red Bartsia, and a variety with white flowers ; Green Lanes, near Small Heath turnpike.—(C. XIV., Linn.)—*Veronica montana*, Mountain Speedwell ; a shady bank on the right of the road from Saltley to Stichford, nearly opposite Mr. Marshall's, at Alum Rock. *V. scutellata*, Narrow-leaved Speedwell ; on the bog below Coleshill Pool. *V. anagallis*, Water Speedwell ; swampy ground near the bridge at Yardley. *V. officinalis*, Common Speedwell ; a bank in the Harborne road, nearly opposite the lane leading to the Botanic Garden. *V. arvensis*, Wall Speedwell ; Birmingham Heath, near the new church.—*V. agrestis*, Procumbent Speedwell, and *V. hederifolia*, Ivy-leaved Speedwell, are both common on the new soil of the rail-road embankment at Saltley. I collected three more species, all of very common occurrence.—(C. II., Linn.)

\* *Linaria* was engaged in Ornithology long before the introduction of the term into Botany.—EDS.



ORDER, LAMIACEÆ.—*Scutellaria galericulata*, Common Skull-cap ; side of the canal near the Aqueduct, Erdington road. *Melissa calamintha* (*Thymus calamintha*, Eng. Flora), Common Calamint ; a bank at Saltley, a little beyond the cottages. *Nepeta cataria*, Hedge Catmint ; near the farm yard, Tower Hill, Perry Barr. *Lamium galeobdolon* (*Galeobdolon luteum*, Eng. Flora), Yellow Weasel-snout ; a bank near Vaughton's Hole ; nearly opposite the arch through the embankment of the Birmingham and London rail-road, near Saltley. *Leonurus cardiaca*, Hedge Liontail ; in a narrow shady lane, among Nettles, at the back of Perry Barr Park. *Galeopsis tetrahit*, Common Hemp-nettle ; banks at Saltley, Netchell's Green, and in the Halesowen road.—(C. XIV., Linn.)

ORDER, PRIMULACEÆ.—*Lysimachia nemorum*, Wood Loosestrife ; a bank in Garrison Lane, opposite the row of Poplars ; also in a meadow near Moseley Park. *L. nummularia*, Creeping Loosestrife ; a lane near Alum Rock, Upper Saltley.—(C. V., Linn.)

ORDER, PLUMBAGINACEÆ.—*Littorella lacustris*, Plantain Shoreweed ; Coleshill Pool, plentiful.—(C. XXI., Linn.)

ORDER, POLYGONACEÆ.—*Polygonum amphibium*, Amphibious Persecaria ; in the stream midway between Avern's Mill and the Pebble Mill, Edgbaston. *Polygonum lapathifolium*, Pale-flowered Persecaria ; the fresh soil of the embankment of the rail-road, near Saltley.—(C. VIII., Linn.)

ORDER, URTICACEÆ.—*Urtica urens*, Small Nettle ; a bank at Saltley, opposite the Coleshill road. *Humulus lupulus*, Wild Hop ; a hedge near Sparkbrook.—(C. XXI. and XXII., Linn.)

## CLASS II.—MONOCOTYLEDONES.

ORDER, ORCHIDACEÆ.—*Orchis morio*, Green-winged Orchis, and *O. latifolia*, Marsh Orchis ; a meadow near Small Heath turnpike.—(C. XX., Linn.)

ORDER, JUNCACEÆ.—*Juncus squarrosus*, Heath Rush ; Coleshill Bog. *J. bufonius*, Toad Rush ; a damp lane between Sturchley-street and King's Norton. *J. lampocarpus*, Shining-fruited Rush ; the same place.—(C. VI., Linn.)

ORDER, ALISMACEÆ.—*Sagittaria sagittifolia*, Common Arrowhead ; near the mill-dam, Perry Barr Park.—(C. XXII., Linn.)—*Butomus umbellatus*, Common Flowering Rush ; the brook in Edgbaston lane, near Avern's mill.—(C. IX., Linn.)

ORDER, ARACEÆ.—*Lemna polyrhiza*, Greater Duckweed ; a pit near Saltley Hall.—(C. II., Linn.)—*Typha latifolia*, Great Reed-mace ; stream in Soho Park.—(C. XXI., Linn.)

ORDER, CYPERACEÆ.—*Eleocharis palustris*, Creeping Spike-rush; Coleshill Pool, Pebble Mill Pool, and the stream near Vaughton's Hole. *Scirpus sylvaticus*, Wood Clubrush; side of the brook nearly opposite Avern's mill, Edgbaston Lane. *Eriophorum angustifolium*, Narrow-leaved Cotton-grass; Coleshill Bog.—(C. III., Linn.)—*Carex stellulata*, Prickly Sedge; Coleshill Bog. *C. panicea*, Pink-leaved Sedge; same habitat.—(C. XXI., Linn.)

ORDER, GRAMINACEÆ.—*Nardus stricta*, Common Matgrass; Sutton Coldfield, a little beyond the new Catholic College.—(C. III., Linn.)

## DIVISION II.—CELLULARES.

### CLASS III.—ACOTYLEDONES, OR CRYPTOGRAMÆ.

ORDER, FILICACEÆ.—*Aspidium lobatum*, Close-leaved Shieldfern; a bank at Saltley. *A. spinulosum*, Prickly-toothed Shieldfern; a shady bank in Garrison Lane, opposite the row of Poplars. *Asplenium ruta-muraria*, Wall Spleenwort; an old wall at Sandwell Park; Aston Park wall, side next the lane leading to Witton.—*Blechnum boreale*, Northern Hardfern; Moseley Common, near the new road; Coleshill Bog.—(C. XXIV., Linn.)

In this list I have probably inserted the names of some plants which may be considered common, while, on the other hand, I have omitted others of more rare occurrence. This must unavoidably happen: plants which are scarce in one locality are very often common in another, and to decide in all cases when a plant may be deemed *rare*, and when common, is no easy matter. I have purposely admitted a few which are by no means generally rare, though, from local circumstances, they happen not frequently to be met with around Birmingham—such as *Nuphar lutea* and *Anemone nemorosa*—merely for the direction of young collectors, whose botanical rambles may be circumscribed to the immediate neighbourhood. Limited as the collection was to the observations of *one summer*, it can excite no wonder that this selection is not more extensive; many plants were not in bloom when I happened to visit their localities, and I hope, by future additions, to make it much more extensive.

It possesses one merit, however, which a botanist will not consider a trivial one: not *one* plant is inserted on "*hearsay*;" every specimen was collected from the station where it grew by *myself*.

## ROMAN ANTIQUITIES DISCOVERED IN WORCESTERSHIRE.

BY JABEZ ALLIES, ESQ.

SINCE my paper on Roman antiquities, &c., discovered in the city and county of Worcester (an abridged account of which appeared in vol. iv., p. 85, of *The Analyst*), further discoveries have been made at the Kempsey Gravel Pit,\* where five or six more cists for burial by cremation have been found, and which were roofed with clay and broken pebbles. One of them was of an oval shape, near three yards long, two yards broad, and about five feet deep in the gravel. The others were smaller and not quite so deep. Some of the latter merely contained black ashes; others contained ashes and fragments of red-earth pottery, made in the Roman mode (the mouth of one of the urns is twenty-eight inches in circumference) and the greatest cist contained black ashes and a large broken pan of coarse materials like those made by the ancient British†, and judging from a segment of the pan, it was three feet in circumference. Out of this cist there was a passage into a smaller one. A fragment found in one of the cists has a small handle situated at the shoulder part of it, the bow of which is only large enough to admit the little finger, and the side of the fragment is partly indented for the purpose.

As great alterations are occasionally made at the site of the above-mentioned Roman camp, I will endeavour to give an account of it from its present relics; fearing that, in a few more years, almost every vestige of it will have past away.

The west vallum lay on the ridge of ground, or precipice, skirting the flat on the east side of the Severn. The north end of it commenced at the back of the garden belonging to the Parsonage Farm-house, and ran in a line from thence to within about 15 yards

\* This gravel-pit, the property of Joseph Smith, Esq., is situated in a ploughed field, called the Moors, on the ridge or precipice of ground, out of floods way, which skirts the flat on the east side of the river Severn, and lies between that river and the village of Kempsey, near the northern side of a vallum, which by many writers is described as a Roman camp, and within the site of the southern end of which camp, Kempsey church stands.

† In my previous account, I suggested that there formerly might have been a tumulus over the cists at Kempsey; but that only applied to those cists which I considered were ancient British or Romanized British cists, and not to those which were purely Roman.

of the south-west corner of Kempsey church-yard, where it bowed round into such corner. Judging from a measure lately made by footsteps, this vallum was about 200 yards long.

The south vallum appears to have run along the south side of the church-yard, and was about 90 yards long.

The east vallum ran along the east side of the church-yard, and other property, and through the garden of Gore Cottage into the orchard behind, and was about 200 yards long.

The north vallum ran from the above-mentioned orchard to the north-west corner of the garden of the Parsonage Farm-house (from whence we set out), and was 180 yards long, or thereabouts. The rounded corner, and such other part of it as lies in Gore Cottage orchard and garden, is still very perfect, and measures 26 yards across; but as it is a mound of gravel, I fear it will ere long share the fate of the rest of this northern vallum, which within these few years has been levelled by the parochial authorities for road materials.\*

The Roman coin which I referred to in my previous paper, as having been found in the gravel-bed at Kempsey, is since ascertained to be one of Nero; and the previously undeciphered one, found at Powick, is a Claudius Gothicus. Some of those found in Britannia-square, Worcester, in the foundation of the supposed circular tower or fort, are of Decentius, Magnentius, and Claudius Gothicus. The others discovered there are principally of the Constantine family as before described.† It is worthy of remark, that the above foundation was of new red sandstone, like that in the quarries at Ombersley or Holt, and such stone was most probably brought by the Romans down the river from one or other of those places: in corroboration of this I lately received a letter from Dr. Prattinton of Bewdley, wherein he says that, some years ago, he found several specimens of Roman pottery of the finest sort in the parish of Ombersley, and had the sanction of his late excellent friend, the discoverer of the extensive villa at North Leigh, in Oxfordshire, as to the probability, if not certainty, of there having been a Roman residence in the neighbourhood.

\* Since I wrote the above, the rounded corner which lies in the above garden has been partly, and will soon be completely, demolished.

† Britannia-square lies upon the ridge of ground, out of floods way, exactly opposite Cinder Point, on the east bank of the Severn, where a Roman foot-blast for smelting iron-ore is supposed to have been situated, as described in my former paper, under the head Yarranton. Although the finding of Roman coins in a particular locality is not sufficient proof of its having been a Roman station, yet when we consider all the corroborative facts in the above case, the evidence appears to amount almost to a demonstration.

I have Roman coins of Probus and Gratian, and also an undeciphered one, which are said to have been lately found in an excavated mass of soil upon which some old tenements stood, in a street called Dolday, in this city. In *The Stranger's Guide to Worcester*, by Ambrose Florence, p. 13, the above ancient part of the town is noticed as follows.—“In the corporation book, called *Liber Legum*, made in the reign of Henry VII., it is ordered that all ‘Walshe catell’ coming to be sold, be brought to Dolday.”

Camden, in his *Britannia*, vol. ii., p. 352, edit. 1790,\* says—“Worcester was probably founded by the Romans, when they built cities at proper intervals on the east side of the Severn, to check the Britons on the other side of that river. It formerly boasted Roman walls. It has now a tolerably strong wall.”

In Britton's *History and Antiquities of Worcester Cathedral*, published in 1835, it is stated that “Dr. Stukeley, who appears to have visited the city and several other places in this part of England, in 1721, and afterwards published an account of his antiquarian researches in his *Itinerarium curiosum*, says—‘no doubt but this was a Roman city, yet we could find no remains but a place in it called Sudbury, which seems to retain in its name some memorial of that sort.’”† To this Mr. Britton added—“This place is now called Sidbury‡—evidently a corruption of South-bury or borough. Since Camden, Stukeley, and Green wrote their respec-

\* Vide, also, Andrew Yarranton's Work, intitled, *England's Improvement by Sea and Land*, &c., (the first part of which was published in 1677, and the second in 1698), and Chambers's *Biographical Illustrations of Worcestershire*, title, Yarrington.

† Bishop Lyttleton was also of that opinion. Dr. Nash, in the absence of the late discoveries, raised considerable doubts, in his *History of Worcestershire*, as to Worcester having been a Roman station, as he did not think Yarranton's account was sufficiently conclusive.

‡ Upon a culvert, a few years back, having been made about thirty or forty yards long in Sidbury street, just outside where the city-gate stood, a pebble pavement was found all along the line, about six feet deep in the earth. The like was also discovered in the adjoining lane leading out of Sidbury, by the back of St. Peter's church, to the china factory; but I should think this pavement was not Roman, but of a more modern date, and buried, perhaps, at the time of one of the conflagrations of this city, for the ground in that quarter has been considerably raised since the above church was built, as the steps down into that ancient edifice sufficiently indicate. It was at the above spot in Sidbury where Charles II. escaped from the Cromwellites, aided by a waggon, which crossed the gate-way, and which was laden with ammunition, according to Dr. Bates's account in his *Troubles of England*, and with hay, according to the *History* of Dr. Nash.

tive works, a vast mound of earth—the keep of the ancient Norman castle on the south side of the cathedral—has been entirely taken away; and some Roman antiquities were found, in 1833, at or near its base: viz., an urn or jug of red earth with a handle; coins of Vespasian, Caligula, Nero, Tiberius, Adrian, Antoninus Pius, &c.; and in a field near Upper Deal was discovered another Roman urn, containing twenty copper coins of Carausius.”

“The real extent of the ancient castle cannot now be ascertained, but the lofty mound, called the keep, and its ditches, &c., occupied an area of between three and four acres. The apex of the keep mound measured more than eighty feet above the high-water mark of the Severn, which flowed close to its western base.”

In addition to the above-mentioned discoveries of remains at the Castle-hill, I have to observe that a workman some time ago brought me a small fragment, which, from its weight, he fancied was gold. He stated that he dug it out of the gravel, near the centre of the bottom of the above hill, during its demolition. I submitted this substance to an experienced Chemist, who, upon analization, found it to be exactly the same in quality as what is called “patent yellow,” the mode of making which is set forth in Mr. Gray’s work on Pharmacology. Now, if the Castle-hill really was thrown up by the Romans, and the workman’s above account was true, it may reasonably be inferred that the paint in question was of Roman manufacture; but it has been surmised that the above hill, or the greater part of it, was made of the earth which was excavated upon the laying of the foundations and crypt of the cathedral.

With respect to that splendid and probably ancient British tumulus, called Cruckbarrow-hill, which is situated between two and three miles eastward of Worcester, it is very likely that the Romans used it as a watch or signal station, in the line of the Old Hills and Malvern Hill, on the south-west, and of the Storage, Suckley,\* Ankerdine, Berrow, Woodbury, and Abberley Hills on the west and north-west. This hill is of an oval shape, and measures 512 yards round within the ring fence at the base, and about 180 yards round the crown. I take it this was partly a natural hill, and that it had a tail lying eastward, which was pared down to-

\* That part of the Suckley chain, called the Round Hill in Alfrick, has a very tumulus-like appearance: the whole of the above range is rather minutely described in my pamphlet *On certain curious Indentations in the Old Red Sandstone of Worcestershire and Herefordshire, &c. &c.*, published in 1835.

gether with any other excrescences, and the materials placed upon the head. There is gravel at the apex: this I lately saw where a hole had been dug. It is very probable that this mound was formerly called Cruck-burrow hill, the word burrow being of Saxon derivation, and meaning a place fenced or fortified. If, however, it really is a barrow, I presume that it is the largest in the kingdom. As the Berrow Hill is of a very oval shape, it is more than probable that its sides were also pared down by the aborigines of our island; for there are lines of intrenchment round it near the top, in the same manner as at Wood-bury Hill.

Under all the circumstances detailed in this and my previous paper, I submit that doubts can no longer exist of there having been either Roman camps, stations, or forts at Worcester, Powick, and Kempsey, and probably also at various other places in this beautiful county.

*Catherine Villa, Near Worcester,  
Feb. 1, 1836.*

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## ANTONIO'S LOVE SONG; OR, DON QUIXOTE'S REVERIE.\*

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“As a madman fancies every one mad but himself, a patient with vertigo that every object is going round, so man, in the pertinacity of ignorance, transforms truth into error, by a blind supposition that truth is with him only.”†

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THOU flower of chivalry! incomparable man! I see thee sitting elbow to elbow with thy incomparable Squire; thy tarnished mail, with more rust on it than dishonour, brushing against the rough hose of thy antithesis—that emptier of wine-skins and flesh-pots—Sancho the first and the last—the Sir John of his class. I see thee; the inverted trough giving repose to the finest Caballero in La Mancha and all Spain to boot, side by side, “cheek by jowl” with

\* See vol. i.

† *The Would-Be*; old copy, p. 57.



that broad faced incarnation of humour, inimitable Sancho, without thought of high degree or knightly bearing ; thy spirit too fond to be unkind even though Amadis himself should reprove thee for thy familiarity. I see the swarthy goatherds sitting round their skins and acorns, looking on thee with dull admiration and wonder ; I see the amorous Dapple fondling in vain with the neck of his companion in arms, the good steed Rozinante, who is too nearly famished to be unchaste. Admirable pairs !

There is no noise to disturb the solitude ; the light long branches of the cork trees wave themselves over thee as a canopy. The picture is made. The flesh-pots are empty ; the goatherds pour the acorns before their guests. Taking one between his finger and thumb, the knight breaks forth, "happy times and happy ages, those to which the ancients gave the name of 'golden,' when *meum* and *tuum* were sounds unknown in the universal benefaction." The knight's sorrowful tones yet breathe the last words of the golden age. The goatherds listen, admiring the manner of their guest. The knight holds an acorn between his finger and thumb ; the images of that blissful period which his imagination had recalled, yet filled his mind—a thousand creations float around him—not as a mere dream, but the delightful realities of the moment ; for to him all was reality in the shadowy realms of fancy—a moonlight of the mind, when real existencies are lost in the gigantic shadows which they cast, not beheld as shadows, but incorporated in the object.

The talismanic acorn is still held between his finger and thumb, when the rough tones of the goatherd shock his sensations and dispel the dream. The knight looks up—the acorn falls to the ground. "That your worship, Signor Knight-errant, may the more truly say that we entertain you with a ready good will, we will give you some diversion and amusement by making one of our comrades sing, who will soon be here." The tinkling sounds of a rebeck are heard in the distance :—Antonio, welcome. A rustic lover is Antonio ; "a very intelligent lad and deeply enamoured, and, above all, can read and write, and plays on the rebeck to your heart's content." Antonio sits himself down upon a little green mound, under the spreading branches of an old oak, and tunes his rebeck with a singular good grace. The broad, good-humoured faced Sancho sets himself more at ease on his haunches ; he fixes his eyes on the suspended wine skin. God bless thee, thou simple-minded Squire—thou who art lost in the delights of hope and ease ! Antonio, thy song : Antonio sings of love—what the acorn was to the knight's

reverie of the golden age, Antonio's song was to the following waking dream ; for the knight was so singular in his character that he lived rather in his own thoughts than by outward observation, and, by a strange *deceptio visus*, saw everything as he wished everything to be. The rough tones of Antonio's voice were softened by the bell-like tinkle of the rebeck: what he wanted in knowledge he made up by the plaintiveness of his manner. The knight composes himself to listen ; he places his broken helmet on the grass ; his long, scanty, and slightly-grizzled hair, parted in the middle, falls on each side his high intellectual brow. The upper part of his face bespeaks a character of almost feminine benevolence, but the slight curl of his moustachioed lip shews an heroic contempt of danger. His features are lighted by his imaginations of knights and ladies fair, of joust and tournament, of all the bright heraldry of honour. The knight attends—Antonio sings of love: the good knight thinks of his ladie—he wanders in the green arcades of Toboso—he hears every note, but Antonio and his rebeck are forgotten—the goatherds are forgotten—Sancho is dead: Don Quixote sees only the peerless Dulcinea. He at once grows young and handsome as Chilates—he springs from the back of Rozinante, a more noble animal than Cyd's *Babieca*—he kneels at the feet of the peerless Dulcinea—she smiles upon him—she binds his arm with a bracelet of her own golden hair—he gazes on her with the fascination of a lover, the devotion of a worshipper, and the purity of a knight—heavenly emanation, “the high heavens that with your divinity divinely fortify you with the stars ;” but ere he could proceed he is struck to the ground by an invisible power—Urganda, the sorcerer, seizes on the peerless Dulcinea and bears her away—her cries die away like the breath of the evening breeze—in vain he laments her loss, in vain he calls on the delight of his soul. He springs upon his steed—the last beams of the sun glitter on his armour as he passes into the inextricable mazes of a wood. He wanders on, with no other support than what his own thoughts afford him, and is saved from despair only by the sight of the bracelet of his Dulcinea.

The knight revives as if touched by a charm ; he braves the desert, and defies the storm that beats around him. Thus he pursues his devious and uncertain course, and, after overcoming innumerable dangers, approaches the castle of the dreadful sorceress Pinti-quiniestra. The Don kisses his bracelet: as he passes the black towers of the castle not a sound is heard, not an object appears. At length he meets with a little old woman, whose hobbling legs

can scarce save her from the tread of his beast, Rozinante. She turns and looks upon him: Sir Knight, be good, Sir Knight; I am old, Sir Knight; the storm comes on, Sir Knight; help me, good Sir Knight! She would have fallen had he not have reached forth his hand and aided her to rise; she springs into the saddle with a shriek, Rozinante bounds forwards, the barbican drops, the portcullis flies up, and they enter the castle of the enchantress Pintiquiniestra.

Welcome, my love, to the festal halls of Pintiquiniestra! laughs the old hag. Welcome! Welcome! reverberate a thousand echoing laughs. Upheld by a hidden spell, the knight follows the hag through gloomy passages and arcades whose leaves are seered and dry; as the thick wind moves them they rattle like dead men's bones. They now stand before a door that seems studded with a thousand lurid stars; in an instant it flies open, and the knight enters a saloon where a thousand black marble columns support the ceiling, on which shine the same kind of stars, but so distant that more than the general outline of the hall cannot be seen; grim shades of giants seem to wander through the mighty space: the knight's spurs clank (and echoing clank) across the marble tiles. They stand before a door wherein a thousand brilliant gems sparkle—music floats around and fills the air—the giant shades are seen no longer, but light and voluptuous forms bewilder the knight's senses. Suddenly a thousand silver notes harmonious blend in one burst of ravishing melody. The knight nearly sinks overpowered on the marble-based couches on which beauteous damsels recline in all the voluptuousness of sense, their charms covered but not concealed. He gazes on the bracelet, and revives.

The old hag has disappeared, and in her place a Nubian slave beckons him on. At doors of sapphire the slave pauses—they fly open—the Nubian is gone, but on each side of the saloon are a row of black slaves motionless as statues on their pedestals; their eyes glare on the knight, who still advances. Welcome! Welcome! mutter a thousand tongues. The dauntless knight advances boldly towards a light that seems far off; he reaches the door, narrow and small, with only one burning gem in the centre. It grows brighter and brighter, until almost insupportable; it seems consumed by its own fires. He passes on—he is joined by a lovely form, who floats noiselessly before him. They stand before a row of silver pillars; as the fairy throws her hand from right to left, a streak of blue light glitters on the columns—it grows brighter and brighter—suddenly they divide, half sinking into the earth—the

knight shades his eyes with his hand, for the flood of light was, at first, blinding—he enters, and the columns close—he stands alone. On a throne of crystal and ever-varying gems sat the fatal enchantress Pintiquiniestra; the light of her face darkens the eye of the knight, but he shrinks not; a row of fairy forms stand on each side of the throne, and with golden harps tune the loves of Pintiquiniestra; while the dull sound of falling waters adds to the charm, and fills the knight with delicious sensations. There are no lamps in the saloon, but from every side shine gems radiant as the stars, that glance their lights into one vast lucid mirror, wherein myriads of rays ever burning, concentrated, are reflected in one burst of light upon the throne of the enchantress, who gazes on it: Confused, but not dismayed, the knight advances. As he stands at the foot of the throne, a fairy transparent sylph, more beautiful than mortal creation, presents him with a crystal goblet of wine; he touches it with the cross-hilt of his good sword, and it flies into a thousand stars. Pintiquiniestra frowns and the hall grows dark. She stands up and beckons him to advance; he gazes for a moment on the bracelet of his Dulcinea, and ascending the steps of the throne is seated by her side. Her hand that touches him is white as the marble roof of the hall, but as cold as the coffin's lead. She gazes upon the knight, but her glance burns with other fire than that of love. The fairies sing the delights of love, but the strain is wild as the blast. Pintiquiniestra, rising, beckons the knight; they pass through a crystal door into a garden—an Eden of pleasure surrounds him—flowers of every hue and fruit of every clime, but the odour was that of dead and decaying leaves. Pintiquiniestra leads him to a bower; she smiles in the full effulgence of her charms. Sir Knight, all that thou see'st is thine, wilt thou but wed me. The Don starts, and, making the sign of the Cross, cries "Sorceress, avaunt! I dread not thee, but, by this good sword, will deliver the peerless Dulcinea from thy power." An earthquake shakes the garden into one wild wilderness of wood and rocks—the palace of Pintiquiniestra dissolves like the fabric of a dream. As the knight rubs his eyes the roar of a dragon startles him from his reverie, and, turning round, he lays his hand on the huge, rough head of Sancho, who lies snoring on his shoulder. "Master of mine," quoth Sancho, "think you that a man goes to sleep for the pleasure of waking?" "No, Sancho," replies his master, "but that I took thy head for that of the dragon of the giant Freston, and truly thy noise was almost as horrible."

Antonio had finished his song, and, with the goatherds, had de-

parted. The last beams of the western sun lights the pallid brow of the Knight of the Sorrowful Figure as he seizes his helmet, and, mounting Rozinante, leaves the place of wine-skins and flesh-pots, love-song and reveries.

"Sancho," said Don Quixote, checking the eagerness of Rozinante that he might the better discourse with his squire—"Sancho, dost thou believe in dreams—waking dreams?" "I know not," replied Sancho, "what your worship means by waking dreams, but if I do not believe in dreams I am no knight's squire; and would you, sir, but give me your ear—" "Give thee my ear, Sancho! that were an ungenerous gift, since that uncourtly knight whom I defeated has already deprived me of one." "I mean, sir," quoth Sancho, "your attention; I would tell you, sir, a dream of mine when I was by the side of Mary Gautierez, my wife, that was as true as she herself can testify, and swear to. I went to bed—" "Never mind that, Sancho," said Don Quixote, "the dream." "Well, then, your goodness, I dreamed Mary Gautierez, my wife, was beating me, and, waking in a fright, found it was but too true, for she was thrashing me for a fault no thrashing could cure me of." "Enough, Sancho," said the knight—"It was enough, indeed, sir, and I wish every dream of mine may prove as true, and I shall soon light upon another company of goatherds, flesh-pots, and wine-skins, all of which I dreamed of when your worship woke me for sleeping on your worship's shoulder." "Sancho," said Don Quixote, rather sorrowfully, "I have been in the enchanted castle of Pintiquinietra, and have saved the peerless Dulcinea from the power of her enemies." Sancho opened his mouth as if about to laugh, but seeing the melancholy face of his master, he restrained himself, and asked where the beauteous Dulcinea had been left. "That's a thing," replied the knight, "I cannot well inform thee of, inasmuch as I do not know myself." "Master of mine," said Sancho, "if this is not a waking dream I don't know what is; for nobody in their senses could have so mad a sleeping dream." "I am inclined to suspect so myself, Sancho, but I do not the less believe that it is a prophetic vision which is allowed to prepare me for the dangers which lie before us." "Say, rather, before you, sir," quoth Sancho, "for if dreams of sorcerers and dead men's bones are to come to pass, I would rather be drubbed by my 'crooked rib,' Mary Gautierez, all my life through; but if dreams with your worship are ever to come true, I beseech you, Sir, to dream of nothing but flesh-pots and wine-skins." "Sancho, thou art an incorrigible feeder." "Any thing, as it may be," muttered Sancho, "but meat for magicians," and so they rode on.

## ON THE PRESENT STATE OF THE OPERA IN LONDON.

THE opera season in London is to me ever attended with feelings of humiliation, inasmuch as it exhibits the weak part of a great nation. All that money unaccompanied by knowledge can procure is, at this establishment, to be found in abundance. To obtain the first singers of Europe sums are lavished which no other nation would dream of expending; yet compare the performances with those of Vienna, Berlin, and Frankfort! A musician will at once perceive that the arrangements in these cities are dictated by a perfect acquaintance and familiarity with every part of the art; whereas in London, provided the manager can secure a Pasta or a Grisi, he is completely satisfied, and remains indifferent respecting the (to him) unimportant points—the character of the music, the precision of the orchestra, and the efficiency of the chorus. But the fault cannot justly be said to rest entirely with him while the public continue in a state of musical ignorance which renders them incapable of discovering the most glaring faults and obvious deficiencies in these important particulars.

The tickets are ten shillings and sixpence, and the performance takes place three days in the week during the season, and yet only three or four trashy operas are to be heard, and these, with the exception of the first-rate singers, indifferently performed; whereas in the greater number of the German capitals a seat in the boxes may be obtained for two shillings and sixpence; such singers as Fischer, Achter, Schmezer, and Dobler, and occasionally Schræder Devrient, Wild, and Haitzinger, are either permanently engaged or fill the *gast-rolle*;\* the best operas, ancient and modern, are given during the whole of the year. The orchestra, likewise, not only contains the best performers to be procured in the town, but is always under the direction of a man of superior talent, as Sponcini at Berlin, and Juhr at Frankfort, while the choruses, half as numerous again as our own, are well trained and effective.

Reasoning from these facts, what other conclusion can we arrive at, but that this striking difference originates, on the one hand, from a complete acquaintance with the principles and objects of the art, while on the other there exists an absence of knowledge and a

\* Literally, guest part, or part taken by one who is unattached to the establishment of the place. The guest usually sustains the principal character.

total disregard of both ? A person tolerably conversant with musical science, if he have mixed much in society, must be aware of the ignorance and presumption which may be said almost universally to prevail on the subject ; in fact, it is scarcely hazarding too much to affirm that a larger portion of nonsense is uttered in conversation respecting Music than on any other topic. In proof of this assertion, I have myself repeatedly heard Mozart called heavy, Haydn dull, Rossini sublime, Beethoven's *Fidelio* very mediocre, Bellini's *Puritani* the most beautiful music in the world ; in short, I have been doomed to hear nearly all the great composers abused, while the inferior were lauded to the skies. Good singers are decried when the piece they select happens to be beyond the comprehension of their self-constituted judges ; bad music is pronounced delightful when well performed ; merits are condemned as faults, and defects exalted into beauties.

But, it may be inquired, why so desirous of enlightening us ?— If we are pleased with bad music, and bored by that which is good, we have surely a right to the enjoyment of our own opinion and taste, while we leave you to the free and undisputed enjoyment of yours. True ; but if it be possible to point out a mode by which a diminution of expenditure may be effected, and, at the same time, the gratification which you derive from Music incalculably augmented, will you not allow the attainment of these two important objects to be a subject worthy of consideration ?

We have been denominated a nation of shopkeepers ; as regards Music, however, our trading propensity cannot be said to have been successfully exercised or our schemes wisely planned ; it is not a very business-like habit to expend largely, and passively to accept in return commodities of inferior quality. Now what adequate compensation, what profit, let me ask, does a lady herself derive from the consumption of three or four hours daily at the piano forte, during a period of ten or twelve years ? or in what degree are her parents and friends remunerated for the time, attention, and money, expended to procure for her this highly-valued privilege ? She has been taught to scramble through some half-dozen difficult concertos, and a proportionate number of airs, with variations, divertimentos, &c., written in the prevailing taste of the day ;\* and it is to this fashionable “ accomplishment ” that she has

\* This reminds us of the dancing-master in the *Provincial Sketches*, who began his musical instructions with “ Hooke's Lessons ” and ended with the “ Battle of Prague,” as the *summum bonum* of the art ! *mutatis mutandis* ; this, we fear, is too often the case in the present day.—EDS.



been allowed to sacrifice that precious time which ought either to have been devoted to the acquisition of useful knowledge, or to laying in a stock of health and strength indispensable to the fulfilment of the arduous duties of life.

This erroneous course, however specious in appearance, cannot even succeed in obtaining for its victim the applause on which she calculated; the concertos, however well adapted to show off a consummate master at a concert, are sadly misplaced when attempted by an amateur in the drawing-room, and the minor pieces are generally of so slight a texture as to be voted completely *passées* within a few short months of their publication. The ill-executed concertos weary, and the rondeaux, &c., have been heard to satiety on every barrel-organ. What is to be done? A collection of superior music is placed before her, or she is requested to take a part in a duet; but, alas! she dare not venture upon untried ground; music which she has not learned with her master is to her a sealed book. In theoretical knowledge she is still more lamentably deficient than in the practical; with the origin of the common chord, the diatonic scale, and the minor mode, she has no more acquaintance than with the laws of harmony or counterpoint. The probability, moreover, is that she has never even heard the names of composers who have been with justice considered as the Raphaels and Michael Angelos of the art.

Inferior models having been invariably placed before her, she is alike ignorant, theoretically and practically, of all that constitutes excellence in music; and the more perfect the composition the less qualified will she be found to understand or appreciate its merit. Under these disadvantageous and disheartening circumstances, she will either abandon the pursuit in despair or confine her practice to a miniature collection, in her own hand-writing, of the prettiest and newest waltzes. A favoured few may, no doubt, be found to whom this description of the usual routine of a musical education will be inapplicable, but it cannot reasonably be expected that these exceptions should be capable of producing any perceptible effect on public taste.

It will, I presume, be readily conceded that the mind of a person thus educated can be but slenderly provided with the knowledge requisite to form a correct judgment of a performance so complicated as that of a grand opera.

The gentlemen auditors may, in general, be said to be in a still more benighted state than the ladies: can it, then, be a subject for

marvel, is it not rather to be expected, that an opera should stand or fall, not *according to its own intrinsic merits*, but according to the perfection of voice and execution, and that its fate may even depend on the face and figure of the prima donna? Can it, under these circumstances, excite surprise that the *Puritani* should, night after night, attract crowded and admiring audiences, while Spontini's *Vestale*, Winter's *Opferfest*, Meyerbeer's *Robert le Diable*, and even Weber's *Oberon*, proved failures at the time they were produced, and are now nearly forgotten. Good music may undoubtedly, in some instances, meet with a favourable reception from the public—for instance, Beethoven's *Fidelio*; but the success of this opera may fairly be attributed to the splendid performance of Schræder Devrient, and subsequently to the equally excellent representation of a striking character by Malibran. But for these lucky accidents this opera might probably have been laid on the shelf with the others; the attraction lay in the singer and the actress, not in the music. Pasta performs in *Norma* and *Anna Bolena*, and immediately the demand for these two dullest of dull operas becomes universal. Malibran holds the mirror up to Nature in the *Somnambula*, and the call for the opera becomes so urgent that the publishers find considerable difficulty in supplying the requisite number of copies. The same observations may be applied, with equal truth, to the *Puritani*; it owes its success, in a great measure, to the performance of Grisi, Tamburini, Rubini, and Lablache. Had any of the highly-extolled operas been presented to the public with a piano-forte accompaniment previous to their performance, the music-sellers would not have been remunerated for the expense of publication.

A musician can form as perfect an idea of a composition from looking over the score, as he would be enabled to do by playing it or hearing it performed. It would be, perhaps, requiring too much to expect that amateurs should attain the knowledge and experience requisite to enable them thus to judge; but it surely is compatible with the time usually allotted to this study, to expect that, from a good arrangement, with the voices in score and the instrumental parts compressed into a piano-forte accompaniment, they should be competent to pass a correct judgment in regard to the style of an opera, and its fitness for public performance. A really efficient musical education would enable the public to appreciate the intrinsic value of an opera, *independently of adventitious circumstances*; it would render them capable of criticising its merits and defects more justly after having studied it at the piano, than the present

frequenters of the opera are competent to do after having heard it performed during the whole season.

Without entering at this moment into detail as to the precise system of instruction which would qualify the student to criticise correctly, I would take leave to suggest that the first step in the reform of musical education should be the abandonment of the pernicious custom of allowing masters to give to their pupils chiefly their own compositions, instead of forming their taste by an early acquaintance with the great models in each style. Every piece which is played, may be supposed to exert some degree of influence on the taste of the pupil; and should her practice have been confined either to the compositions of her instructor, or to the fashionable music of the day, she can only derive that scanty portion of pleasure from the study which their inferiority is capable of producing. In lieu of this meagre fare, would it not prove a more profitable, as well as more agreeable course, to introduce the pupil to the history and progress of Music, from the time of Josquin de Prez to the present day?—to explain the difference between the styles of the church, the opera, and the chamber, and to introduce her to the works of the greatest masters in each department?\* In order to accomplish this plan, it is by no means necessary that a young lady should devote a large portion of time to the study of church music or oratorios: judiciously selected specimens will be amply sufficient to impress her mind with tangible ideas of the meaning of the terms sublime, beautiful, ornamental, grand, pathetic, &c.

Her instrument being the piano-forte or harp, her practice should be chiefly among the classical composers for these instruments.† A

\* “It is certain that if the art is to remain an art, and not to be degraded into a mere idle amusement, more use must be made of classical works than has been done for some time past.” If the *Somnambula*, *Puritani*, &c., are classical works, then, indeed, the art is in no danger of this degradation, in England at least.—EDS.

† A familiarity with the higher walks of the art is not, in our opinion, to be acquired by the study of a few specimens, however judiciously selected, but is the result of an investigation and comparison of the different means by which this higher walk is attained. If, then, this familiarity be so desirable, we think that a certain and not an insignificant portion of the time of study should be allotted to this hitherto neglected department. We see no reason why a young lady should not be able to appreciate, according to their respective merits, *Hosanna to the Son of David*, as well as one of Mozart's sonatas. We grant it will be long ere she can even find equal pleasure in them; but until she sees in the former one of the sublimest monuments of

familiarity, however, with the higher walks of the art will ever prove of the greatest advantage to the performer, because it is on these models that the inferior styles are founded. I would also particularly recommend the study of the piano-forte works of the great *vocal* writers who have composed for that instrument; Mozart, Haydn, Beethoven, Himmel, Weber, Hummel, ought to be as familiar as the more fashionable and more flimsy compositions of the day.

The pupil should likewise be instructed in the elements of harmony, and the theory of sound: a knowledge of the former would accelerate the progress in execution, and give facility in playing at sight; while the latter, by demonstrating the connexion of Music with Nature, would impart an interest to the subject which can never be experienced by those who learn in the usual parrot-like manner. Theory\* and practice should never be separated; but each employed as an illustration of the other, instead of the absurd method commonly pursued of postponing the study of the theory to the finishing period of musical education, when the probability is that it will not be undertaken at all. The idea that children soon forget the names and properties of chords, originates in the irrational practice of teaching thorough-bass as a distinct branch, as an affair of semibreves, minims, and hard names to be committed to memory, but having no connexion with the music they are in the habit of practising. Were the instructor, in the course of his les-

musical genius, and in the other a happy union of the beautiful and ornamental styles, she may have rapidity of execution, facility of playing at sight, even from score, and a cultivated taste, yet that taste, to be brought to perfection, requires still further cultivation.—Eds.

\* What is commonly termed the *theory* of Music, is, we humbly conceive, no more theory than the art of executing a passage properly on any instrument. In acquiring a practical knowledge of Music, we can consider no one as having finished his studies unless his knowledge of composition be equal to his powers of execution; the one being as much a matter of practice as the other. Nor will the initiation of the pupil into the mysteries of the “harmony of the 6th,” or the “resolution of the discord of the 4th,” at all assist him in putting a correct base to an air, or in writing the parts of a psalm tune. The greatest masters never studied the rules as they are found in books, but derived them from the works of classical composers; and this, we maintain, is the true method in which a knowledge of these rules and the power of applying them is to be gained. Were this plan adopted, how much time, fatigue, and disgust might be spared on the part both of instructor and pupil, to say nothing of the more rapid progress, and the far deeper knowledge of the resources of the art which would be the inevitable consequence of such a course.—Eds.

sons, to familiarize the pupil with the *application* of the rules previously studied, and, instead of the idle practice usually adopted of correcting individual notes, were he to take the trouble of saying "harmony of the 6th," "resolution of the discord of the 4th," &c., the learner would recognize in the music she was playing an organized plan, not an arbitrary succession of notes, which she is at liberty to alter at pleasure. The laws of rhythm, accent, emphasis accompanied by rules for proper phrasing, if judiciously and familiarly explained and illustrated, could not fail to produce a beneficial and lasting impression. Dry detached rules may be learned as an irksome task, and speedily forgotten; it is the application and properly-demonstrated practical utility of the rules which will unconsciously take hold of the mind, and remain there ready for future use.

A knowledge of the scales of instruments most commonly employed in modern music, as well as the passages best adapted to them, and their use in the orchestra would not only prove in itself a highly interesting and pleasing study, but would give to the student the additional advantage of being able to understand and to appreciate orchestral music—a department too much neglected in this country, although Haydn, Mozart, Beethoven, and Spohr have clothed some of their finest conceptions in the *sinfonia* for a full band, and in the quartet for stringed instruments.

The study of intonation and the rules of singing, has been recommended even to those who have no intention of pursuing that delightful art practically, solely with the view of improving the ear, and giving a correct idea of the manner in which slow movements ought to be performed on the *piano-forte*: this knowledge is also *indispensable* to the critic of vocal compositions and performances.

These remarks, although slight and hasty, may prove not wholly unsuccessful in directing attention to the errors and defects of musical education as at present conducted; under a proper system it would embrace a wide extent; indeed, it may be affirmed that a perfect acquaintance with each particular department of this little understood and, therefore, lightly-esteemed science would suffice to occupy a life: my desire is to persuade those who consume time and money solely on the gilded toy *execution*, to add to flexibility of finger and manual dexterity an acquaintance with the principles on which the art is founded, and thus to increase largely their own enjoyment, while the taste of the public will be raised to a higher standard, and our performances no longer remain, as at present, subjects of derision to foreigners. Conceiving that it may prove

more generally useful to enter into the discussion of particulars than to reason on abstract principles, I will proceed to give my impressions on the present state of the opera in England; requesting the indulgence of the musician, to whom I may appear to pass superficially over matters demanding a deeper and fuller investigation, while I may possibly weary the general reader on points to which he feels a total indifference.

When Spontini, on his return from England, was requested to publish, in one of the musical journals at Berlin, an account of the state of music in this country, he replied that the art was at so low an ebb in England that he considered it unworthy the trouble of criticism; and this opinion has been spread pretty widely on the continent by other foreign musicians of equal celebrity. Although I admit that there is ample ground for censure, I cannot but consider this sweeping condemnation as more severe than we actually deserve; but, accustomed as the Germans are to a high degree of excellence with a comparative dearth of means, they are naturally astonished to find mediocrity in a city which affords, perhaps, greater facilities for the attainment of musical excellence than any other. Now we, on the contrary, are apt to flatter ourselves that our opera presents a model of perfection, and to look down on the German houses as deficient in that important desideratum a *prima donna*. The truth would seem to lie between these conflicting opinions, each country possessing advantages not to be found in the other, although the sole impediment to our capability of exhibiting the united excellencies of both may fairly be attributed to the inferior amount of musical knowledge possessed by the English public. Criticisms of a high order may, indeed, be found in Baker's *Quarterly Musical Journal*, the *Spectator*, &c.,\* but these publications are either unknown beyond the circle of the professionally musical world, or are unintelligible or uninteresting to the public at large. Perhaps it may not be considered as too sanguine to indulge the hope that the following remarks, appearing in a periodical so deservedly popular and so generally interesting as the *Analyst*, may attract the attention of those who, if not altogether, have it largely in their power to remedy the defects, and remove the stigma under which we now labour.

In regard to the orchestra, the foreign critic is instantly and for-

\* We hope that in *Music our own Journal* will, in future, be found deserving of that praise which, in its other departments,—without vanity be it spoken—it has obtained from those whose praise is most valuable.—Eds.

cibly struck by a want of precision, not only in the time, but in the observance of *pianos*, *fortes*, and *crescendos* ; he feels the absence of that thorough understanding which, in the best German orchestras, pervades the whole, from the conductor and leader down to the drum. This want of understanding is the reason why, in a band containing so many first-rate musicians, we seldom hear a passage well-executed in *piano* by the whole band ; the *fortes* thus necessarily lose much of their effect, and long *crescendos* are scarcely attempted. Yet listen when they accompany one of Pasta's or Rubini's arias, or when they play the introductory symphony ! It is the *beau ideal* of elegant and graceful instrumental execution, and surpasses any accompaniment I have had an opportunity of hearing on the continent.

When an orchestra of upwards of fifty performers executes passages where all its powers are brought into play, they cannot possibly succeed in expressing the meaning of the composer if they have not undergone much previous training, and if the eye of a skilful conductor is not constantly upon them. This preliminary training is not requisite when ten or a dozen of the most consummate masters, on their respective instruments, in the constant habit of playing together, have to execute the simple symphonies and accompaniments to modern Italian airs. Mori, Lindley, Dragonetti, Nicholson, and Willman, require no prompting in their respective parts, and they, moreover, enjoy the inestimable privilege of accompanying constantly the finest singers in the world.

No orchestra can excel in the performance of difficult music if the conductor is not *au fait* in reading a full score at sight, and capable of instantaneously detecting the most trifling inaccuracies in the performance ; it is equally indispensable that he should be perfectly master of the manner in which every style ought to be executed. The Italians are seldom adepts at making out a score ; their knowledge of composition is usually superficial, and they are easily satisfied in regard to execution. It is a fact perhaps not generally known that Italian orchestras are incapable of getting through even the notes of such operas as *Der Freischutz*, *Robert le Diable*, &c., not only from the difficulty of the keys in which they are written, but on account of the precision required in the performance of the concerted pieces ; to Italians any other music but that of their own country and time is as an unknown tongue. In these circumstances we discover one great disadvantage under which our opera has long laboured, namely, that the conductors have been, with few exceptions, Italians. Were a German musician of eminence to be ap-

pointed to this most responsible post, it is easy to foresee that the orchestra would speedily undergo a marked change for the better, and, consequently, the public taste would improve in the same proportion. The objection that a German would be incapable of entering into the spirit of Italian music, is entirely void of foundation; he who is able to appreciate Beethoven and Weber may be supposed competent to understand the superficial merits of Rossini and Bellini; of this capability no further proof need be adduced than the manner in which the works of this school are got up in Germany.

A German would be invaluable in drilling the chorus, the state of which is, at present, a national disgrace; Italians appear to consider precision in this department as totally unconnected with the effect of an opera: to give an instance, the choruses in *Marino Faliero* were, last season, drawled out in a manner which could only have been the result of negligence. The precision and spirit with which the German companies, when in England, gave the most difficult choruses, excited general admiration; yet the idea never appeared to occur that it would be desirable to introduce this much-needed improvement into our own chorus. In selecting a German conductor, care should undoubtedly be taken to avoid appointing a bigotted adherent of the modern crabbed school of Spohr, Ries, Marschner, &c. No censure is here intended to be passed on these great masters themselves; it can only attach to those who, with Rinck and many others, have adopted the defects without the beauties of their style. From the observations which I have had an opportunity of making on the characters of the different schools of Germany, I am inclined to think that Vienna and Prague are the most likely to furnish musicians in all respects suited to the office.

One of the most glaring errors in our establishment remains to be noticed—an error proceeding in some measure from the persons to whose control it has been committed. I allude to the fact that, within the last five years, the performances have, with some few exceptions, such as *Don Giovanni* and *Medea*, consisted exclusively of the works of one school; viz., that of Rossini and his followers. I must now take leave of the reader for a season. In my next paper I will endeavour, by an impartial survey of the merits of these composers, to ascertain how far they are entitled to this exclusive preference over the masters of all other times and countries.

Y. D.

(To be continued).



## AN HISTORICAL VIEW OF THE CHARACTER OF FISHER, BISHOP OF ROCHESTER.

"I love Fisher; you have taught me to hate Harry the Eighth more than ever."—DR. PARR.\*

ALMOST every learned foreigner of the present day who has directed his researches to English history, has animadverted upon the disposition of Protestant writers to exaggerate the merits of Henry VIII. and unduly to soften his crimes; while another main impression is, their disparagement of those personages who had the rare magnanimity to oppose his arbitrary dogmas in church and state. It is quite impossible not to attach this charge of partiality to the historian of the Reformation, Bishop Burnett, however loud and frequent may be his vauntings that truth was the sole end and object of his labours. This celebrated author may be said to have given the impulse, to have set the tone to this favourite and fashionable principle. In exemplification of this remark, take his delineation of the characters of Cranmer, Cromwell, and Fisher. Surely he might have done ample justice to the two former without attempting to throw a cloud over the venerable virtues† of the latter. We do not blame him for his lavish praises upon the two great in-

\* See Butler's *Reminiscences*, vol. ii., p. 227.

† So unconscious, however, does Burnett appear of making his readers more acquainted with the faults than with the excellencies of Fisher, that he does not scruple to say, "I seem to write like one that intended to raise his character rather than to depress it."—*Hist. of the Reform.*, v. iii., part 2., p. 519. Now it must strike a man of plain understanding to be rather a novel method of exalting Fisher's character, to affirm that "he was much addicted to the superstitions in which he was brought up."—*Hist. of the Reform.*, v. i., p. 708: and, again, "his charity was burning indeed. He was a merciless persecutor of heretics, so that the rigour of the law under which he fell was the measure that he had measured out to others."—*Hist. of the Reform.*, v. i., part 2, p. 439. "Call you that backing of your friends? A plague upon such backing." Moreover, it may be observed, that a less partial historian, if he had occasion to couple the names of Fisher and More in the same sentence, would not have passed over the merits of the former in the slighting manner Burnett has done, as if there were no elements of greatness or goodness in his composition, however true it may be that the reputation of the latter still shines with undiminished brightness. "The taking so many lives, particularly Fisher's and More's, the one being extreme old, and the other one of the glories of his nation, for probity and learning, &c. &c."—Preface to the *Hist. of the Reform.*, p. xvi.

struments of the Anglican Reformation, we blame him only that with his avowed reverence for historical impartiality, he should have spoken so lifelessly and coldly of that truly apostolical man the Bishop of Rochester, Cardinal, as the papists style him, of the Holy Church of Rome; whose nobleness of principle, unalterable purity of action, disinterestedness, and generosity of soul, should at least have been described with fairness and liberality, if they did not command his willing admiration.\*

One would have imagined, from its being so demonstrable that Henry could not find hatred enough in his heart, or punishment enough on earth,† for that inflexibly honest prelate, our upright and conscientious historian would, as often as the name of Fisher presented itself to his notice, have penned not a few sentences of moral reprobation upon those hellish inmates of Henry's breast which may be called his household gods. But from the manner in which he glides over the monstrous iniquity of his sentence, the hasty and superficial reader might be led to suppose, that Burnett was as ignorant of it, as of the mighty powers of steam; whereas, to those

\* The qualities of his head and heart were such, as at one time to extort from Henry himself this high compliment to them: addressing Cardinal Pole, he said, "Se judicare me nunquam invenisse in universa peregrinatione mea, qui literis et virtute cum Rofferne esset comparandus."—*Apol. Poli.*, p. 95.

† The brutal malignity of Henry did not, according to Pole, cease with the life of Fisher, but extended itself towards his remains:—"Itaque cum post carceris miseriam quindecim mensium spatio perpressam produci eum fecisset, capite, plecti jussit. Nec vero hoc satis, nisi mortui corpus omni contumeliæ objiceret, quod nudum prorsus in loco supplicii ad spectaculum populo relinqui mandaverat, ad quod nemo accedere audebat tyranni metu, præter eos qui contumeliæ causa accederent, vel qui mortuo indumenta detraxerant."—*Apolog.*, p. 96. There is a detailed account of the treatment of Fisher's dead body, in Dr. Hall's, or, more correctly writing, Dr. Bailey's *Life of Fisher*, from which any one might justly conclude that the English people were not then emerged from savagery, even to a semi-civilization.—p. 210. But what I shall now state on the authority of the Roman Catholic historian, Dodd, will transcend the belief of the present age, and can be received by the vulgar only, whose credulity is always probable:—"After the exposure of Fisher's head for fourteen days upon London Bridge, it was thrown into the Thames, in consequence of a report that rays of light were observed to shine around it."—*Church Hist.*, v. i., p. 161. Hall, more modest in his reference to this miracle, though ready enough to give it a welcome admission, contents himself with saying, that "the face was observed to become fresher and more comely day by day, and that such were the crowds collected together to look at it, that almost neither cart nor horse could pass."—*Life of Fisher*, p. 212.

who know such a suspicion to be ill-founded, he stands exposed to the full force of the accusation, that he purposely shunned details, lest he should be obliged to make his hero "a hissing and a curse," not being quite prepared to affirm, with the sycophant of old, that "every act of a ruler must be just."\*

The great intellect of his fellow prisoner and sufferer, Sir Thomas More, the public and conspicuous part which he had so long and early acted,† have helped to obscure the fame of Fisher, although several distinguished Protestant‡ writers have cited him as an example of sanctity, purity, and charity, and extolled him for his warm devotion to the cause of letters. Admirably well does he deserve their commendation in both respects. His appointment to the see of Rochester originated from a feeling on the part of Henry VII., shared, if we are to believe their biographers, by sovereigns of a later period, though not keeping a sufficiently firm hold upon their minds to urge them, like that monarch, to atone for the mischievous effects which have resulted from preferring the unworthy to the worthy. In writing to his mother, the Countess of Richmond, the king confesses that he had "promoted many a man unadvisedly; and I wolde now," he proceeds, "make some recompence to promote some good and vertuose men;" and he, therefore, desires to appoint her confessor, Master Fisher, "for none other cause but for the grate and singular virtue that I know and se in him as well in conyng and natural wisdome, and specially for his good and vertuose lyving."§

This striking fact alone ought to have painted the Bishop of Rochester, in Burnett's eyes, as one of those truly pious Roman Catholics deserving of the reverence of posterity. It would also have been a safe duty to have shewn, in strong colours, Fisher's love and encou-

\* Παν το πραχθεν ὑπο του κρατουντος διαιον.—Plut. *Opera*, Franc., 1599, v. i., p. 639. Such was the language with which Anaxarchus consoled Alexander for the murder of Clytus.

† Even when "a bearded boy," as Wolsey styled him, his eloquence was so commanding as a public speaker, that he prevailed on the House of Commons to withhold a grant of money to the crown. See the history of his brilliant life, by Roper, his son-in-law; Singer's edit, p. 12.

‡ See Fuller, Strype, Wharton, Collier, Hume, &c. &c. "All," say the authors of the *Biographia Britannica*, "acknowledge that he was a sober man, pious, temperate, charitable, and an encourager of letters."

§ See the letter in the Appendix to the Funeral Sermon of Margaret Countess of Richmond, edit. 1708, p. 41. Mr. Butler, therefore, is evidently mistaken when he says, that Henry VIII. raised him to the see of Rochester.—*Historical Memoirs of the English Catholics*, v. i., p. 169.

agement of letters, so splendidly illustrated by his patronage\* of Erasmus, and by his effectual persuasions to the “venerable Margaret,” as Gray styles her†, to found Christ and St. John’s Colleges at Cambridge, together with a professorship of divinity in each of the universities, and other scholastic endowments.‡ As a further proof of Fisher’s literary tastes and predilections, it may be mentioned that, in his sixtieth year or upwards, according to Erasmus,§ he entered upon the difficult study of the Greek language then revived in England; for we learn from venerable Bede that it had been introduced into England, half a century before his own time, by Theodore, whom Pope Vitalian had appointed archbishop over the infant Anglo-Saxon churches. Fisher also, in his noble ardour for the promotion of classical or ancient literature, sent down, in his capacity of Chancellor of the University of Cambridge, Richard Croke, to become there the successor of Erasmus as instructor in the Greek tongue;|| while we have another instance of his natural

\* *Erasmi Epist.*, London, 1642., p. 353; and Butler’s *Life of Erasmus*, pp. 65, 118.

† See his *Ode for Music*. But Margaret was not only a zealous patroness of literature, but an authoress herself. In Ballard’s *Memoirs of several Ladies of Great Britain, who have been celebrated for their Writings*, the compositions of the mother of Henry are enumerated: while so great was her religious enthusiasm, that she declared if the princes of Christendom would unite together for the purpose of marching against their common enemy, the Turks, she would willingly follow them in the humble capacity of *laundress* to the camp.—See Camden’s *Remains*, edit. 1665, p. 271.

‡ “His whole study,” observes Dodd, “was to put her upon such undertakings as became her exalted station and his own character. By his persuasion, she founded the noble colleges of Christ and St. John, in Cambridge, and Fisher greatly contributed to the expence of enlarging and completing the latter. According to a statement, which is not so well known as it deserves to be, the Master and Fellows of the latter college transmitted to him a letter in the darkest hour of his troubles; which, regardless of its drawing upon their heads the vengeance of Henry, attests, in the most undisguised manner, the affection and reverence with which they still looked to this single-hearted benefactor of letters. One passage in it reflects everlasting honour upon that college, while it forcibly points out for our instruction, that wealth well spent is sure, one way or other, to reap its due reward:—“*Tuum est eritque quicquid possumus. Tui omnes scimus erimusque toti. Tu nostrum es decus et presidium tu nostrum es caput ut necessario quæcunque te mala attingant ea nobis veluti membris subjectis acerbiter inferant.*”—*Harl. M.S.*, No. 7030, p. 230.

§ *Erasmi Epist.*, 522, 526.

|| See Hallam’s *Introduction to the Literature of Europe, in the eighteenth, seventeenth, and sixteenth centuries*, p. 120.

propensity for the interests of learning in his forming one of the best libraries in the kingdom. Of this repository of knowledge there is so interesting a notice, by a biographer of the Bishop, that we shall give it in his own words. "He had the notablest library of bookes in all England, two long galleries full; the bookes were sorted in stalls, and a register of the names of every body at the end of every stall. All these his bookes, and all his hangings, plate, and vessels for hall, chamber, buttery, and kitchen, he gave, long before his death, to St. John's College, by a deed of gift, and put them in possession thereof, and then, by indenture, did borrow all the said bookes and stuff, to have the use of them during his life; but at his apprehension the Lord Cromwell caused all to be confiscated, which he gave to Moryson Plankney, of Chester, and other that were about him, and so the college was defrauded of this noble gift."\*

The writings of the Bishop against the Lutherans† display the powers of his extensive learning and his acuteness as a polemical divine, while his pulpit discourses, however devoid of attraction now, were considered as models of eloquence by his cotemporaries, and to have done honour to his age. Had all his works come down to us, for he was a most voluminous writer, we might conclude, from the vehement admiration expressed of them by one of those cotemporaries, that each of his productions approximated so closely to excellence as to challenge the homage of posterity. But though the specimens left will not justify this sanguine augury of his eulogist, yet, from the following curious reference to his literary labours, he seems, from the fullness of the mind or the desire of instructing mankind, never to have been happy without his untiring pen. "In his lifetime he wrote many famous and learned treatises with great diligence, whereof none came to light, because he lived not to finish them. But myself have seen diverse of them, and some other I have heard of by report of good and credible persons. And it was once told me by a reverend father that was Dean of Rochester many years together, named Mr. Phillips, that on a time in the days of Edward

\* *Harl. MS.*, 7047, p. 17.

† Those writings of his which are extant, were published separately in England, and printed collectively at Wurtzburg in one volume folio, 1593. Upon the title of one of them, *Pro damnatione Lutheri*, charity, justice, and impartiality must all combine in actuating us to set a mark of reprobation, however much Fisher might deem it a sacred duty to promulgate and record his detestation of opinions considered by the Romish communion as heretical.

VI., when certain commissioners were coming toward him to search his house for books, he for fear brent a large volume which this holy Bishop had compiled, containing in it the whole story and matter of the divorce, which volume he gave him with his own hand a little before his troubles; for the loss whereof the Dean would many times after lament, and wish the book whole again, upon condition that he had not one grote to live on. Many other of his works were consumed by the heretickes, which, shortly after his death, swarmed thick in every place and grew into great authority, doing thereby what themselves listed. And it has been reported by a good old priest called Mr. Buddle, who, in his youth, wrote many of his books for him, there came to him on a certain time in the aforesaid King Edward's days, a minister, by authority of him that then occupied the See of Rochester, and took from him as many written books and papers of this holy man's labors and travell as loaded a horse, and carried them to His Majestie; they were all afterward brent, as he heard say by the maister minister and the mann. This Mr. Buddell was then parson of Cockston, in Kent, not far from Rochester, where he yet liveth, a very old man, and declareth many notable things of the austere life and vertue of this holy man."\*

Enough, however, of his writings remain to prove him one of the ablest controversialists of his day. But the general reader, we suspect, will prefer the following extract from his funeral sermon on the noble Princess Margaret to any we might select out of those erudite tomes, not merely because it affords the best specimen of his English style, but as proving how well the memory of his royal benefactress is entitled to the respect of the wise and good of succeeding ages. Speaking, indeed, with reference to this eulogy as a composition, we are almost inclined to compare it, from the modern turn and structure of some of its sentences, to the good English which is conspicuous in his fellow martyr's *Life of Edward V.* "She was bounteous and lyberal to every person of her knowledge or acquaintance. Avarice and covetyse she most hated, and sorrowed it full moche in all persons, but specially in ony that belonged unto her. She was of syngular easyness to be spoken unto, and full curtayse answer she would make to all that came unto her. Of mervayllous gentyleness she was unto all folks, but specially unto her owne, whom she trustede and loved ryghte tenderly. Unkynde she wolde not be unto no creature, ne forgetfull of ony

\* Harl MS., 7047.

kyndness or servyce done to her before, which is no lytel part of veray nobleness. She was not vengeable ne cruell, but redy anone to forgeate and to forgive injurys done unto her, at the least desyre or mocyon made unto her for the same. Mercyfull also and pyteous she was unto such as was grevyed and wrongfully troubled, and to them that were in poverty or sekeness, or any other mysery. She had, in a manner, all that was praysable in a woman, either in soul or body.”\*

Fisher passed through the extremes of fortune, he stood the test of dangers, temptations, and sacrifices, with the same heroic constancy as More; he manifested that temper of concentrated resolution in prison, at the tribunal, and on the scaffold, which marked the bearing of those whose names are most conspicuous in the annals of the Reformation; and there was that composed dignity in his character which rendered him equally indifferent with More to the plaudits of his countrymen. It is, then, a subject of censure that Burnett should have evinced such reluctance to give this martyr of the Romish church,† of whom, from his saint-like qualities, she may be justly proud, his due rank among the ancient worthies of the realm, especially as there was not an atom of that lust of self-aggrandisement or power which is so emphatically called, in the *History of his own Times*, the besetting sin of the churchman. For when offered, by Henry VIII., at one time the see of Ely, and at another that of Lincoln, each of which was treble in value to his own, his memorable answer was, “Others may have a larger income, as for me I shall not change my little old wife, to whom I have been so long wedded, for a wealthier;”‡ and upon being told that Paul III.,§ in testimony of his great merits, and of his follow-

\* There is a reprint of this interesting discourse, in 1708, by Baker, the Cambridge antiquary.

† Fuller has been styled “a man of praises;” but the quaint old historian was not so imbued with the fashionable liberality of this generation, as to bestow them upon an individual whose religious faith differed in several respects so widely from his own, unless the whole life of such a person was, in his opinion, a copy to be admired. Speaking then of Fisher, he says, “He was generally pitied for his age, honoured for his learning, admired for his holy conversation. Besides it was not worth while,” he adds, “to take away his life, who was not only *mortalis*, as all men, and *mortificatus*, as all good men, but also *moriturus*, as old men, being past seventy-six years of age.”—*Church Hist.*, b. v., sect. 3.

‡ See Fuller, 201, 203.

§ In following Burnett, a late respectable Historian is evidently mistaken when he says “that Clement VII. bestowed that honour upon him.”—See

ing so firmly and resolutely his convictions in the face of all consequences, had conferred upon him the high dignity of a cardinal, he calmly replied, "If the red hat were lying at my feet I would not stoop to pick it up, so small a value do I set upon it."\*

O! what a rebuke, what an admonition, is there in the first of these sayings, to that extreme selfishness and spirit of worldliness which have marked the conduct of many a succeeding prelate, and of which we have saddening glimpses in our own remembrance, and which, it must be confessed, have left an intensely painful feeling upon the humble-minded Christian, while they have called forth protesting voices among the people, even against the episcopate itself. Now a reverend historian of the present day, whose protestant predilections are quite as strong as those of Burnett, is not afraid to make this ample and generous admission, that "we cannot fail to respect the man who would never exchange his small bishopric of Rochester for more valuable preferment."† If there be, then, still those among our first order of priesthood who are tempted to cast a wistful look upon a wealthier see—to feel a desire of accumulation beyond what Christianity prescribes—and thus to cling to mammon while professing to serve the church—let them shut their eyes, and think of Bishop Fisher's truly evangelical de-

Carwithen's *History of the Church of England*, v. i., p. 143. This Pope died on the 26th of September, 1535, and Paul created Fisher a Cardinal, in a general promotion, on the 21st of May, 15—.—See Wharton, *Contin. Hist. Roff. Angl. Sacr.* 1.

\* The bitter brutal jest which Henry passed upon this offer, might lead one to suppose, that Fisher had earnestly sought to obtain this papal present:—"Let the Pope send him a hat when he will; but by God's mother he shall not wear it on his shoulders then, for I will leave him never a head to set it on." Now, from the fact of Fisher's having been named to the purple before the intelligence of his condemnation could have been brought to Rome, it is quite manifest that this appointment was not made "sorely to vex and irritate Henry," but out of respect to his talents and virtues, and steady attachment to the Papal see, of which he had always been the inflexible and uncompromising advocate. "Finally, the said, Machon writeth, that he, expostulating with the Bishop of Rome for that he had made the Bishop of Rochester a Cardinal, knowing him to be the person whom your Grace favoured not, and had most worthily deserved your Grace's high indignation. The said Bishop of Rome answered, that he had not doon it for any displeasure unto your Highness, but only for that he thought him, for his singular learning and good lyving to be a personne most mete to be present in the general Counsaile, there to have his ayde and assistance in suche doubts as might arise."—*MS. Harl.*, Baker, 7030, p. 206.

† See Short's *Sketch of the History of the Church of England*, v. i., p. 147.



claration. "To die shamefully rich," as Burnett phrases it, "was an unholy wish," he tells us, "that possessed many a bishop in his day," and which, no doubt, produced a most injurious effect upon the best interests of our pure scriptural and apostolic church. But in these times of strong political excitement, when the motives as well as the actions of our mitred ecclesiastics are severely, minutely criticised and examined, "when there is no charm in the *name* of a bishop," when he is no longer regarded as a sacred abstraction—although he is, according to the theory of certain of our clergy, from his residence being a palace, his cathedral seat a throne, his crosier a sceptre, his mitre a crown, to be invested with a sort of regal inaccessible elevation of rank—the heavings of the public mind would be so general, the tide of popular odium would run so strong, against these money-amassing propensities, that no prelate, however inordinate might be his affection of money, would venture to shock our moral vision by giving to religion this hue and colour of earthliness. For he must know little of the signs and tokens of the present age who could expect to find a due reverence paid to his order, should he fail to carry into full efficiency any one of the conditions on which the payment of that reverence is founded. These are still truths of vital importance, though the "ecclesiastical commissioners of England," by so far equalizing the revenues of bishops as almost to set aside the practice of translations from one diocese to another, have contributed, in no small measure, to put an end to all unhallowed strife for pelf. For performing this excellent service, and for lessening the immoderate incomes of Canterbury, London, and Durham, we fervently ejaculate, God speed their labours! The ecclesiastical commission, noisome as it has become to many of our dignitaries, will, in the foregoing respect, be like the carcass of Sampson's lion, the means of conveying much purifying and strengthening aliment, not only to the church, but to Christianity itself.

In these remarks, the bigot may fancy that he espies the taint of heresy. Be it enough, then, to tell him, we hold as firmly as he can the truth of the apostolical succession\* and of primitive tradi-

\* The Epistles addressed by St. Paul to Timothy and Titus, are decisive evidence of the apostolical sanction to the existence of a three-fold order of the Ministers of the Gospel. "We may, I believe, state confidently" says Dr. Shuttleworth, "that from the days of the Apostles until the early part of the sixteenth century, notwithstanding the multitude of discussions which took place on other points, no large community of Christians existed, in which the respective grades of Bishops, Priests, and Deacons were not

tion;\* enough to tell him, we are quite as much opposed as he to that school of divinity called liberal or latitudinarian, although, unlike him, we indulge in no harshness, bitterness, or severity, against those whose religious opinions are different from our own. Under this influence of a degree of similarity of sentiments between us, we may pass with some as papists in disguise, seceders from *pure* protestantism, and favourers of the undue claims and pestilent errors of the church of Rome. Our earnest wish to do justice, as impartial critics, to the character of Bishop Fisher—to shew how completely it is stamped with the seal of the Christian virtues of humility and self-denial—may, we say, bring upon us these accusations; but those who know how essentially protestant have been the complexion of our religious opinions in all our writings, how unfeigned, undisguised, and unalterable, our attachment to episcopalian protestantism, will smile at any such ill-founded reproaches; nevertheless, we would have no one think that we had imitated the example of Bishop Gunning, who, as Burnett tells us, “by setting himself with great zeal to clear the church of Rome from idolatry, made many suspect him as inclined to go over, though he was far from it.” Returning, then, to the subject which has occasioned this digression: Burnett, instead of expressing all the admiration and respect which this noble example set by Fisher to other bishops demands, contemplates it with that freezing indifference which will not allow him to bestow even one cold sentence of approbation. For in reference to a determination which places the character of Fisher in so venerable a light—which so beautifully exemplifies the feelings of a Christian bishop of the primitive times—our historian thinks it sufficient to remark that “he followed the rule of the primitive church, which never changes for a better.”† That the *History of the Reformation* does equal credit to the talents and industry of Burnett will be readily allowed by all competent judges, but no satisfactory excuse can be made for his withholding praises so justly due, and thus sinking the character of the historian into that of the common polemic, because the Bishop of Rochester lived and died in the Romish communion, because he held the same faith which a

acknowledged and retained.”—p. 14. See his excellent Sermon *On the Voluntary Principle not recognized by the Primitive Church*.

\* Mr. Keble has discussed this much debated point in a most masterly manner, in his recent Sermon, entitled, “*Primitive Traditions recognized in Holy Scripture*.” We earnestly recommend it to the attention of the young theological student.

† *History of the Reform.*, v. i., p. 708.

Fenelon and a Pascal afterwards professed. Surely, then, the substantial worth and excellence of Fisher should have beat down those prejudices which concentrated Burnett's religious likings within a narrow circle, instead of loving Christians as Christians, and not those only who agreed with him in judgment.—But to proceed to the notice of those events which, it may be said, directly brought this venerable prelate to a merciless account.

On the 21st of February a bill of attainder was brought into the House of Lords\* against Elizabeth Barton, the Holy Maid of Kent, then a nun professed in the priory of St. Sepulchre, at Canterbury, and likewise against those ecclesiastics who had given credit or countenance to her pretended prophecies. Among those who were implicated for misprison of treason in this affair was Fisher.† Even his masculine understanding, like that of Archbishop Warham and of More, yielded to the delusion of her neighbours, that the predictions uttered by her were ascribable to some preternatural agency. This prophetess, as the statute informs us, declared that “she had knowledge, by revelation from God, that God was highly displeased with our said sovereign lord, and that if he proceeded in the said divorce, and married again, he should no longer be king of this realm, and that, in the estimation of Almighty God, he should not be a king one hour, and that he should die a villain's death.”‡

This prediction of the nun, Fisher, it was said, had concealed from the king. Cromwell, therefore, advised him to confess his culpability and throw himself upon the royal clemency, with the full assurance of his receiving it. But the principles of this aged prelate, then in his seventy-sixth year, were not so pliant and ductile that they could stifle the voice of conscience at the call of safety. He was not a mere machine in the hands of the court to be moved in what direction they willed, to take what course they chose. When the question of the divorce was agitated, he had boldly maintained the legality of the queen's marriage, by publishing a treatise in defence of it. He was early consulted by Catherine on this grand subject, however some historians have denied the fact. At first, Fisher was extremely reluctant to interfere,§ but when he did

\* See *Journals of the House of Lords*, p. 68.

† *History of the Reform.*, v. i., p. 308, 309.

‡ See Hall, Herbert, Strype, and Lingard upon this transaction.

§ In the first volume of the State Papers, p. 197, 198, there is an interesting conversation between Wolsey and Fisher, on the grand subject of the divorce, upon a visit paid by the former to the Bishop, in which he informs his royal correspondent “he was right lovingly and kindly entertained.”

consent to become a party in her cause he manifested the most unflinching adherence to it. He was one of her councillors upon the hearing before the legate at Blackfriars, and in that capacity so exasperated and envenomed the ire of Henry that this proved the stepping-stone to his tragical end.\* And in a speech in the upper house of the convocation of Canterbury he had lifted up a protesting voice against the suppression of the lesser monasteries, with such energy and freedom as must have conjured to his audience the image of most dangerous consequences, from their conviction of the deep and indelible offence which such an address would give to their tyrannical sovereign. If the following were not the words of truth, they were at least the words of undaunted faithfulness to the opinions which he had espoused. "Beware, my lords," exclaimed Bishop Fisher, "beware of yourselves and of your country, beware of your holy mother, the catholic church. The people are subject to novelties, and Lutheranism spreads itself among us. Remember Germany and Bohemia. Let our neighbour's houses, which are on fire, teach us to beware of our own. An axe," continued the learned prelate, "came upon a time into the wood, making his moan to the great trees that he wanted an handle to work withall, and for that cause he was constrained to sit idle; therefore he made it his request to them to grant him one of their small saplings within the wood to make him an handle. But now, becoming a complete axe, he fell so to work within the same wood that, in process of time, there were neither great nor small trees to be found in the place where the wood stood. And so, my lords, if you can grant the king these smaller monasteries, you do but make him an handle whereby, at his own pleasure, he may cut down all the cedars of the Lebanon."†

The man who did not shrink from giving vent in such an open and frontless manner, to his indignation against measures which, according to his clear and compendious logic, were culpable, because arbitrary and unjust, was not likely to submit to the bent of Cromwell's courtly politics, even though they assumed the colours of goodness, upon an occasion in which his own personal honour and

\* "John Fisher, Bishop of Rochester," says Fuller, "led here the front, whom some catholics call John the Baptist, because he was beheaded, though on a contrary account, John the Baptist for saying it is not lawful, John Fisher for saying it is lawful for thee to have thy brother's wife."

† This speech was said to be delivered in 1529, upon a motion being made in the Upper House of the Convocation of Canterbury for suppressing the lesser monasteries.—Dr. Hall's *Life of Fisher*, p. 108.

character were so deeply involved. Accordingly, with strong emphasis, Fisher replied to his temporizing adviser that "what the nun had communicated to him about the king he thought it needless to mention, because she had told it to the king himself, and he had no reason to doubt of the truth of that assertion, as she had been admitted by the king to a private audience, and, moreover, she had named no person who should kill him, which, by being known, might be prevented. He was, therefore, guiltless of any conspiracy. He knew not, as he would answer before the throne of Christ, of any malice or evil that was intended by her, or by any other earthly creature, unto the king's highness."

For not complying with Cromwell's advice, Burnett calls Fisher *obstinate*;\* an accusation which has been re-echoed by a distinguished writer of the present day. "His persistance in refusing," remarks Mr. Southey, "was plainly a matter of obstinacy, and not of conscience."† One of his comprehensive views and "vast circumspection," to use the words of Lord Hale, ought to have been more alive to the danger of this doctrine; while his love of virtuous feeling should have resisted it, from its connecting a rule of action with a system founded on the supreme authority of the conscience. "It is, indeed, an extraordinary assertion," observes an acute critic, in reference to this subject, "that a man is to be denounced as obstinate because, at the summons of a secretary of state and upon a promise of pardon, he did not acknowledge himself guilty of an undefined offence, of the commission of which his own conscience did not accuse him."‡

Burnett, however, not content with condemning Fisher for his incorrigible contumacy, has, by a strange and most reprehensible perversion, actually transformed him into a sort of ring-leader of the supposed conspirators in this affair of the nun of Kent, as one, in short, who gave unity to their counsels, and stimulus to their zeal. "There are heavy things," he says, "laid to Fisher's charge, but except his being too much concerned in the business of the nun of Kent, which, without doubt, was managed with a design to make a *rebellion* in the nation, I do not find any other thing laid to

\* *History of the Reform.*, v. i., p. 313.

† *Book of the Church*, v. ii., p. 43.

‡ See Observations on the circumstances which occasioned the Death of Fisher, Bishop of Rochester, in a letter from John Bruce, Esq., F.S.A., to Thomas Amyott, Esq., F.R.S., Treasurer, *Archæologia*, v. 25, p. 68. This learned antiquary possesses the rare talent of conveying much exact and original information in a small compass.

his charge.”\* This arraignment appears mighty plausible at first, but, if well examined, it will prove unfounded in fact ; for if there had been any substantial ground for it, why were not the sayings of these conspirators, their actions, their plans disclosed? These surely might have been obtained from repentant traitors, from accomplices, and from informers. There was no risk of popular commotion, no cogent, imperative, perceptible motive of state expediency or security, to prevent these disclosures. The accusation is as valueless as motes in the sun-beam. Fisher’s property was not put in sequestration, or confiscated, and his bishopric and life forfeited, because he had mixed himself up in the elements of treason, according to the assumptions of Burnett, Mr. Turner, and others, but he was crushed by the strong hand of power, as we shall presently demonstrate, on account of his denial of the supremacy. True it is, in reference to those combinations which gave birth to the supposed treason of Fisher, that Cromwell, in a state paper addressed to the English ambassadors in France, has thus expressed himself : “ For, touching Mr. More and the Bishop of Rochester, with suche others as were executed here, their treasons, conspiracies, and practises secretly practisyd, as well within the realme as without, to move and styrre discension, and to sowe sedicyon within the realm, intending thereby, not onelye the destruction of the kyng, but also the whole subversion of his highnes realme, being explained and declared, and so manifestly proved afore them that they could not avoyde or denye it, and they thereof openly detected, and lawfully convicted, adjudged, and condempned of high treason, by the due order of the lawes of this realme ; it shall and may well appere to all the worlde that they, having such malice roted in their herts agenst their prynce and sovereigne, and the totall distruction of the comen weale of this realme, were well worthie, if they had had a thousand lyves, to have suffered ten tymes a more terrible deth and execution than any of them did suffer.”†

Upon this Mr. Turner remarks, “ It is not likely that a minister of state would have used such strong language as this to its foreign ambassadors without some adequate grounds.”‡ But this minister knew as well as Henry that the death of Fisher was the theme of lament and execration throughout Europe, that men of all descriptions, of all ranks of society, were loud and vehement in expressing

\* *History of the Reform.*, v. iii, p. 192.

† *History of the Reform.*, v. vi., p. 110.

‡ *Reign of Henry VIII.*, p. 590, Note 69.

their sentiments of detestation upon the king's vindictiveness and hardness of heart. To avert, then, this storm of moral indignation from themselves, and to turn it, if they possibly could, upon their innocent victim, it was necessary to have recourse to some such expedient as the one just mentioned. Now Henry despised the voice of conscience, or at least it was but feeble when it told him to do what opposed his revengeful passions; and as for his unscrupulous vicar-general, who was bred up in the Machiavellian school,\* we have the most clear and undoubted proofs in *Remembrances* of his—Records, we would call them, of ministerial despotism—that he was quite a stranger to any of those restraints by which tender natures are kept back from daring and atrocious undertakings. At the nod of his royal master he was willing to execute the most odious of the purposes of tyranny; and it is equally undeniable that he could practice in secrecy and concealment, for the attainment of his own selfish and ambitious views, acts the most atrocious and iniquitous, acts not only repugnant to all the commonest feelings of justice, but also contrary to all the fundamental principles of the English constitution. In verification of these assertions we will give some of the items of the *memoranda* which he carried in his pocket when he went to the court, the council, or the parliament:—

“To cause† indictments to be drawn for all the offenders in treason and mysperusion, as the case requyre, concerning the nonne of Canterbury. To advertise the kyng of the orderyng of Maister Fysshier, and to shew hym of the indenture which I have delyveryd to the solicitors. To knowe when Maister Fysshier shall go to his execution. To remembre specyally the Ladie of Sar. To send Gendon to the Towre to be *rakkyd*.‡ To remembre to know the

\* See *Poli. Apol.*, p. 128.

† Sir Henry Ellis, in his *Letters on English History*, in which the above extracts are to be found, has the following remarks in reference to them:—“The Cottonian Manuscript *Titus*, b. i., contains numerous Notes, in Lord Cromwell's own hand, of remembrances when he went to the Court, the Council, or the Parliament. Their folds and creases show that they were the memoranda which he doubled up and carried in his pocket: and it is singular that he should have suffered such to remain.”—Second Series, v. ii., p. 120.

‡ Those legal luminaries, Fortescue and Coke, and other eminent authorities on the common law, have expressed themselves in the most forcible terms against the use of torture in every form.—De Laud, *Leg. Angl.*, cap. 22, and 3rd Institute, p. 35—while, in the following passage, which, as it is not a hackneyed one we shall quote entire, Sir Thomas Smith, who took a lead

trew valew of the goods of Castell-acre, for my part thereof." And that he made no difference between his will and the law the following passage from Stowe furnishes the most positive evidence:—"On the south side and at the west end of this church many fair houses are builded, namely, in Throgmorton-street; one very large and spacious, builded, in the place of old and small tenements, by Thomas Cromwell, master of the king's jewel-house, after that master of the rolls, then Lord Cromwell, knight, lord privy seal, vicar general, Earl of Essex, high chamberlain of England, &c. This house being finished, and having some reasonable plot of ground left for a garden, he caused the pales of the gardens adjoyning to the north part thereof on a sudden to be taken down, twenty-two to be measured forth right into the north of every man's ground, a line there to be drawn, a trench to be cast, a foundation laid, and a high brick wall to be builded. My father had a garden there, and a house standing close to his south pale; this house they *loosed from the ground* and bare upon rollers into my father's garden twenty-two foot, ere my father heard thereof; no warning was given him, nor other answer, when he spake to the surveyors of that work, but that their master, Sir Thomas, commanded them so to do; no man durst go to argue the matter, but each man lost his land, and my father paid his whole rent, which was vis. viiid. the year, for that half which was left."\*

From this statement, and from the curious document so singularly preserved, and which is so absolutely conclusive as to the per-

in the politics and jurisprudence of the reign of Elizabeth, as a statesman and a lawyer, declares most positively that the application of torture for the purpose of extracting evidence and confession was unlawful and unjustifiable by the English constitution:—"Torment, or question, which is used by the order of the civile law and custome of other countries, to put a malefactor to excessive paine to make him confesse of himselfe, or of his fellowes or complices, is not used in England. It is taken for servile. For how can he serve the commonwealth after, as a free man, who hath his bodie so haled or tormented? And if hee bee not found guilty, what amends can be made him? And if he must dye, what cruelty is it so to torment him before! The nature of Englishmen is to neglect death, to abide no torment; and therefore hee will confess rather to have done anything—yea, to have killed his owne father—than to suffer torment. For death our nation doth not so much esteeme as a meere torment; in no place shall you see malefactors goe more constantly, more assuredly, and with less lamentation to their death than in England. The nature of our nation is free, stout, haulty, prodigall of life and blood; but contumely, beating, servitude, and servile torment and punishment, it will not abide."—*Commonwealth of England*, b. ii., cap. 27.

\* Stowe's *London*, p. 180.



sonal character of Cromwell, we express, without reserve, our belief that this extraordinary (as he might with more justice be denominated rather than great) man, as he is unjustly designated, would not be stopt by difficulties to which others would yield—would not be deterred, by any delicacy of moral feeling, from virtually pledging himself to the truth of a declaration, every line of which he knew was traced with the characters of falsehood and injustice.

In Burnett's refutation of the lies and calumnies of that open and decided enemy to the protestant cause, the noted Roman Catholic writer Sanders, there is one instance in reference to Fisher which, it must be fairly admitted, places the Bishop on the wrong, and Sanders on the right side in their respective statements. "The Bishop of Rochester," says Sanders, "was condemned because he would not acknowledge the king's supremacy." Burnett's reply is, "He was never pressed to acknowledge it."\* During Fisher's confinement in the Tower, which was altogether for fourteen months, and where his treatment was such as to make the poor remnant of his life as wretched† as it could be, from the want of clothes and fire, he was visited several times by the lords of the council. In the interval between their first and second visit, there had been the session of parliament of the 26th of Henry VIII., in which was passed the celebrated statute that conferred upon Henry the title of the supreme head of the church, and which made words, contrary to all constitutional forms, treason. Upon their second visit we are expressly told the lords of the council went to know his opinion touching the statute of supreme head. So much for Burnett's declaration that he was never *pressed to acknowledge it*. Fisher, however, with all his straight-forwardness and conscientiousness of purpose, was so wary and unconfiding in his answer to their interrogatories, in the full conviction that they were put to entrap and criminate him, that the lords could draw no other reply than this—that "the statute did not compel any man to answer; he, therefore, besought that he should not be constrained to make farther or other answer than the statute did bind him to make."‡ He was again examined by the council for a third time. But though, on all these occasions, he still declined offering any opinion on the supremacy, lest he might fall into the danger of the statutes, never-

\* *History of the Reform.*, v. i., par. ii, p. 438.

† Burnett himself does acknowledge that "the old Bishop was hardly used."—*History of the Reform.*, v. i., p. 318.

‡ See Bruce, p. 80—83; Lord Herbert, p. 392; and Roper's Appendix, Letters xi. and xii.

theless the council, to gratify the eager, watchful vengeance of his royal persecutor, were even willing to travel beyond the sphere of action into thought, with which no human judgment has concern, of which no human observation can take cognizance; as they sought to interpret his very avoidance of uttering any opinion whatever respecting the supremacy into a flat denial of it.

In this exigency, to find matter of impeachment against their prisoner, Rich, the then Solicitor General, a man who had a genius for lying, and who has acquired an infamous celebrity in history, as the betrayer of More and Fisher, at last succeeded in inveigling him into a denial of the supremacy; for by this abandoned tool of the court, he is charged with having said, "before divers persons, that the king is not supreme head of the church," which accusation, in the cunning verbosity of the statute of 26 Henry VIII., cap. 13, is thus put forth, "that the prisoner falsely, maliciously, and traiterously wished, willed, devised, and by craft imagined, invented, practised, and attempted to deprive the king of the dignity, title, and name of the supreme head of the church." But though theory and practice were both alike against the act of parliament upon which this indictment was principally founded, inasmuch as it obliterated all distinctions between right and wrong in the understanding, which might naturally enough be expected, when the parliament was willing to become the mere instrument\* of sanctioning the most arbitrary measures of the king; yet can the historian of the Reformation resort to the petty-fogging arguments and artifices of legal chicanery† for the justification of proceedings that his, in other respects, sound and pure mind would have taught him to regard as specimens of a sanguinary era, and which memorials of frightful injustice even then might not have been furnished to the philosophical investigation of this age, if the judges who sentenced Fisher‡ had not been the willing delegates of the vindictive and

\* "There is not," as Madame de Staël observes, "a better instrument of tyranny than an assembly when it is degraded."—*Considerations on the French Revolution*, English translation, v. iii., p. 178.

† See *History of the Reform.*, v. i., par. ii, p. 438.

‡ Some have mounted the scaffold with so fixed a determination to astonish their beholders by a display of their heroism, that they died, as it were, with a sort of scenic effect. But Fisher's death was simply great, and therefore truly christian. It is so well given by a protestant divine, that we shall not abridge his narration:—"On the morning of his execution he dressed himself with unusual care, saying that he was preparing to be a bridegroom. As he was conducted to the place of execution, being impeded by the pressure of the crowd, with his New Testament in his hand, he prayed to this effect :

iron despotism so discernible throughout the whole of Henry's reign.\*

M. R. S. L.

## THE DOCTOR.

IF the permanence of our first impressions be sometimes an evil, thereby perpetuating the errors of infancy from the child to the father, from the father to the child, until sin and sorrow grow into an hereditary doom, yet how much of happiness do we owe to the lastingness of first impressions, belonging to a period of sinlessness and innocence when the tender affections were expanded like the opening petal to every beam of light and brightness—impressions

that, as the sacred volume had been the companion and solace of his imprisonment, he might open on some passage which might strengthen him in his last conflict. Having thus prayed, he opened the book—let not the Christian say fortuitously—and his eyes rested on the following passage of Saint John:—‘This is life eternal, to know thee, the only true God, and Jesus Christ whom thou hast sent.’ He again closed the book with joy, and the consolatory declaration was the subject of his meditations, until his mortal existence was terminated by the hand of the executioner.”—*Carwithen's History of the Church of England*, v. i., p. 143—144.

\* In the subsequent reigns of the first James and the first Charles, this revolting spectacle of the judges bowing to the supremacy of the power of the crown, instead of presenting themselves as ramparts against the excesses of political tyranny, and so protecting the subject from the most odious of all wrongs, the most vexatious of all injustice, has been strongly pointed out by Clarendon. The very spirit of the English constitution seems to speak in him, when he says,—“The damage and mischief cannot be expressed that the crown and state sustained by the undeserved reproach and infamy that attended the judges by being made use of in acts of power. In the wisdom of former times, when the prerogative went highest, never any court of law, very seldom any judge or lawyer of reputation, was called upon to assist in any act of power. The crown well knowing the moment of keeping those the objects of reverence and veneration with the people, and that, though it might sometimes make sallies upon them by the prerogative, yet the law would keep the people from any invasion of it; and that the king could never suffer whilst the law and the judges were looked upon by the subject as the asylum for their liberties and security.”—*History of the Rebellion*, book i.

which fell unresisted by our weakness, bound together by memory, the nurse of all that is dear to the heart.

From our first impressions springs the poetry of our natures, when in hardened manhood we look back upon the softened dream of infancy and its thousand prattles, of home, and all of home, of love, and light, and joy—every fluttering feeling, every fond association, full of mother's love, possessing us with those delicious sensibilities which arise from the heart, like the dew-drops exhaling into fragrance.

Mother!—O! there is such a fullness of love in that word, a thousand, thousand fond looks fall on one, a thousand kisses warm, a thousand fond expressions sound again. Father, sister, wife, are void of that utter giving up of self which speaks in mother. We think of her who through infancy preserved us, through boyhood delighted us, through life loved us—who watched every breath, and by her scarce articulate prayer and heaven-turned eye, beaming with its own goodness, taught us all of God—that he is love; “first impressions” that in after years appear shining in the unclosed sanctuary of the heart. 'Tis thus to be a boy again. The past forms the poetry of the future; we foretell the events of unborn hours by the recognitions of olden times, we behold in the expansion of present delights, the golden fruition of young desires. Our fears, our hopes spring from those of childhood—our prejudices, our passions, had their germ in infancy.

“The past is poetry! The deeds, the days,  
The feelings, thoughts, and phantasies of old  
Sown thickly o'er the memory, spring up  
As od'rous flowers to frame a wreath of song.”

The terrors of darkness and the realm of ancient night, peopled with shades, arise from the incomprehensible fears of childhood naturally connecting danger with dependence. For the same reason does the reverence which mankind insensibly render to authorities and powers owe its existence to the first impressions in the infant mind, when, like the savage, we behold authority in its display, and shrink less from the man than from the dazzling splendour which surrounds him. The king's crown, the lawyer's robe, the priest's cassock, the doctor's sables and gold-headed cane, seem substantiated with their being.

Our first impressions seem to be sometimes hereditary, handed down from father to father as one of the incorporated elements of the body. When began the dread with which the name, the person, of

the Doctor is beheld ? To the little child there is something fearful, ghost-like, in the sound of Doctor. It is not a mere antipathy to the jam powder ; there is a hobgoblinish sound in the word Doctor which makes him ever after an object of alarm and dread. We do not mean to include in this title all those ycleped Doctors, from the pig-killer to the apothecary,—

“ Who in the catalogue go for Doctors,  
As hounds and greyhounds, mongrels, spaniels, curs,  
Shoughs, water-rugs, and demi-wolves, are 'cleped  
All by the name of dogs ;”—

but those solemn students and grave masters—the lineal descendants of the ancient “ leech”—who hold no intercommunion with the world at large but through the “ art and mystery” of their calling.

Hark !—the Doctor ! What terror there is in every look, what flying to and fro to escape the glance of the evil eye as he walks up the stairs ; one, two, three, four,—for a true-bred Doctor would sooner swallow his fee than mount two steps at once—five, six : the door opens, and the pale, emaciated, trembling brother, or shrinking sister, droops before the bald-headed Mephistophiles, whose very shake of the hand seems supernatural and belonging to another world. Then the poor patient, her eye restless, her cheek flushed, her breathings short, the very pulse quickened, as he softly intrudes his wan features between the falling white curtains of the bed—the “ How do you do ? how do you do ?” in tones pianissimo, sliding down into a mere breathing aspiration—then the solemn touch of his cold, white, long-fingered hand, the loud tick, tick, tick, of his watch, with the dead, solemn moment of pulse feeling—the ah ! as if talking to his own ghost. The Doctor is a fearful man !

Different from every other created being, every thing conspires to transform him into a nature neither of life nor death. The Doctor's education works well ; the constant features of death, the ceaseless wail of pain and anguish, the affliction of weeping friends—all this works well ; but, more than all, the first fears of infancy and childhood, and the superstitious dread which trafficking with death creates, work all to throw around the Doctor an aspect peculiar and impressive. But this dread is one of those “ impressions” which may be said with us to have had no first, but arose with the existence of human suffering, even long anterior to Machaon or Esculapius ; medicine and magic came from the same womb, and thus

has her altar been ever since surrounded with darkness and mystery. Socrates himself dared not cheat Esculapius, however he laughed at Jupiter. The Asclepiadans grew rich when the priest of Apollo grew poor, and monarchs shrunk before the man who had rent the veil of death itself. The priests, alone, of our own land possessed the charm of the physician; then the cowed and gloomy monk held the poisoned chalice to the victim's lip; next the dim, mysterious Doctor, who, with overwhelming brows, culling of simples in his dingy shop, hung round with alligators stuffed, and skins of hideous, ill-shaped fishes, the very dust of years gone by, coating the unbrushed webs of a hundred spiders. There, in his dark gown, night after night, communing with the magic of his art, prying into the vocabulary of heaven for the uncertain horoscope; while the distilling vapours of simples, but of potent kind—vervain and yew—gathered, in the moon's eclipse, with solemn incantation, wreathed in misty vapours round the walls; the whitened crucibles, the ever-burning, bubbling furnace, the flickering lamp gently lighting up the magic sanctuary, or falling just askant the worn and pallid features of the Doctor, who next degenerated into the little man in black, with the wide, white peruke.

But, like every other class, the Doctors have so multiplied that the original character is almost lost; the faith which of erst hung like a tassel to the gold-headed cane of the last century, has passed away as a tale that is told, and the learned little men in black and bob-wigs have too passed away to be numbered with slashed doublets and trunk-hose in the grave of the olden times. Multiplication breeds want—want breeds contempt of dignity; and thus professional gravity and importance has degenerated into *tact*, and what once rested in the mystery of faith—success—depends now on ingenuity.

The Doctor is now vulgarly omnivorous, and lives in the world like all the rest of the world: and he that a hundred years ago would as soon have thought of any other cloak than black, as that a pleader should forget his gown or a priest his cassock, now touches your pulse with a blue coat and brass buttons, corduroy breeches, and top boots. *O tempora! O mores!*

The Doctor is now a risible animal—he laughs, he jokes, he grows fat. “Look on this picture and on that.” Who does not sigh for the little man whose very step was ghastly, whose face as he gazed down upon you with his dead, heavy-looking eyes, and pressing his cane like a divining rod against his chin, might have

been fancied a pilgrim from the other world, with his black potion brought from Lethe itself to banish all pain in a profound repose? But the Usher of the Black Rod is now another creature; the awful intercommunion between the two worlds forms no part of medical study: the Doctor is veritably a common-place person, and what he once owed to faith is now exchanged for *tact*.

W.

## SKETCHES OF EUROPEAN ORNITHOLOGY.

### GOULD'S "BIRDS OF EUROPE."

#### PARTS FIFTH AND SIXTH.

**PART V.**—The fifth part opens with a very spirited and characteristic figure of the Bearded Lammer—*Gupista barbata*—Gupiste barbu, *Fr.*—Avoltojo barbuto, *It.*—Bärtiger Geieradler, *G.* This species (in its immature plumage the *Vultur niger* of some authors) ranks alone in the genus *Gupista*, which is intermediate between *Vultur* and *Aquila*. It is nearly allied to the Alpine Abern—*Neophron alpina*—and, like that species, it is found in various parts of Europe, Asia, and Africa, but not in Britain. It inhabits the highest ranges of mountains, and appears to be abundant in the Himalayas. Makes no nest, but lays its two eggs, which are white with brown blotches, on the hard surface of lofty and inaccessible rocks. The plumage of the sexes is similar, and no material difference of size is observable. The figure is one-third of the natural size, adult male.

The River Dunlin,—*Tringa pusilla*, *Lath.*—Bécasseau échasse, *Fr.*—Gambecchio oculetto, *It.*—Kleiner Strandläufer, *G.* We are here given three representations, in adult summer plumage, adult winter plumage, and immature dress. They are the size of life, and well executed; that in winter plumage is the best. Inhabits Europe (including Britain), and specimens have been received from India. The borders of lakes and rivers are its favorite resorts. *Food*: worms, insects, and small crustacea. Nidification little known; the egg somewhat resembles that of the Common Sand-

piper—*Totanus hypoleucos*—but is considerably smaller, of a reddish white colour, spotted with dark brown.

The Garrulous Roller—*Coracias garrula*, Linn.—Rollier vulgaire, *Fr.*—Blaue Racke, *G.* An adult female, natural size, is figured; a very fair representation. This beautiful bird is stated to be abundant in the oak forests of Germany, and likewise in those of Scandinavia. It is less common in France, and several individuals have been shot in England, where it has mostly been met with on the north-eastern coast. Frequents extensive woods; builds in the holes of decayed trees, and lays from four to seven eggs; these are smooth and shining, nearly round, closely resembling those of the Kingfisher, but considerably larger. Sexes differ little; but the young do not arrive at their full brilliancy till the second year. *Food*: worms, snails, insects, &c. Noisy and active in its habits.

The next plate contains, 1st, the Whitethroated Fauvet, *Ficedula cinerea*, Blyth—Fauvette grise, *Fr.*—Fahle Sanger, *G.*—Capinera commune, *It.* The character of the figure is good, but Mr. Gould has not recorded any changes of plumage. In many specimens the white does not extend lower than the breast. Very common in most parts of Britain and Europe, and has a short but pleasant song, uttered on the wing. Mr. Gould informs us it has the power of imitating the notes of other birds, but this we have never observed. Hedges and thick brakes are its favourite resort. It is a summer visitant with us. Makes its nest in low bushes, and sometimes on the ground (we have seen one in a yew tree); it consists of the stalks of the Common Bedstraw—*Galium aparine*—and is of very slight construction. Eggs four or five, of a dirty white, blotched with ash-gray. The second figure is the Whitebreasted Fauvet, —*Ficedula garrula*, Blyth—Fauvette babillard, *Fr.*—Klapper Sanger, *G.* It differs from the last in its smaller size, and in having the whole under parts of a silvery white. Mr. Gould's figure is a very good one. This bird is less common in England than the Whitethroated Fauvet, and has not been traced further to the north than Yorkshire. Inhabits the warmer parts of Europe. It is shy in its habits, but is rather more of a tree-bird than the last species; builds in low bushes, brambles, nettles, &c., and is often seen threading the interstices of hedges and brakes; it is partial to orchards, and may be seen at the tops of lofty trees. Eggs four or five, nearly white, blotched at the larger end with gray. It is, also, a summer visitant, and has a pleasant song, which we never heard it utter on the wing. Sexes resemble each other. Both these figures are of the natural size, and in their spring plumage.



A lovely representation of the Wood Pigeon,—*Columba arborea*, N. Wood—Colombe des bois, *Fr.*—Holtz Taube, *G.* Inhabits the middle countries of Europe, being less abundant in the other regions. Occurs in the midland counties of England, in large woods. We are informed by J. D. Salmon, Esq., that it is very common in the sandy district of Norfolk, where it breeds in deserted rabbit burrows, and the young are caught before they are able to fly. In general, however, it builds its nest in the holes of old trees, making little or no nest, and laying two white eggs. *Food*: Peas and other seeds of plants belonging to the Bean family (*Fabaceæ*), and also Turnip tops, Corn, &c. The sexes are similar, but the young, as in other Pigeons, do not possess the metallic lustre of the adults. The figure is of the natural size. This is erroneously called the “Stock Dove” by some authors.

Male and female Kestrel Falcon—*Falco tinnunculus*, Linn.—Faucon cresserelle, *Fr.*—Falco accertello, *It.*—Turm Falke, *G.*—The figures are not wanting in character, but the plumage is too lax, and the air of the birds is not sufficiently bold and falconine. Inhabits the whole of Europe in greater abundance than any other of the genus, and also parts of Asia and Africa contiguous to the shore. Hovers over fields and waste lands in quest of small mammalia, birds, frogs, insects, &c., which it seizes in the usual manner of the *Falconidæ*. The male acquires its beautiful adult plumage at the age of three years, the female at the first moult. Young males resemble the females; and “this,” says our author, “is the cause that so large a proportion of the birds bear the plumage just referred to, since but comparatively few survive the second year of their existence.” The female differs from the male in the browner colour of the upper parts, and in having the upper parts and tail barred with brown. The figures are three-fourths of the natural size.

The Ivy Wren—*Anorthura troglodytes*, Morris—Anorthure ordinaire, *Fr.*—Gemeine Zaunling, *G.* Mr. Gould’s plate, representing an adult bird of the natural size, is infinitely inferior to the really spirited and characteristic figure given by Lewin, who has occasionally, though but seldom, hit off his birds most admirably. It is diffused abundantly over the whole of Europe, and occurs also in Asia and Africa, and the countries bordering on the arctic circle. Abounds in the thickets of the cultivated parts of England, delighting especially in heaps of dead brushwood lying on the ground, and fluttering off, with a harsh twitter, on the approach of man. The song is short and loud, and is heard almost throughout the

year. Indigenous in England, but sometimes falls a prey to the severity of our winters. Builds in almost any situation; the nest is domed, consisting chiefly of moss outside, lined with hair or feathers, and slender twigs wound round the entrance. We have seen the nest consisting entirely of leaves, and others almost wholly of hay. Lays from six to eight eggs, pure white, marked with small red spots. The sexes are not to be distinguished, and the young only differ in size from the adults.

A male and female, two thirds of the natural size, of the White-eyed Pochard—*Fuligula leucophthalmos*, Steph.—Milouin à-iris-blanc, *Fr.*—Tafel Pochard, *G.*—Milouina penelope, *It.* Beautiful representations, but the female is not sufficiently feathery. Common in France, Holland, Germany, India, and North Africa; rare in England. It is an expert diver, and strong and rapid on the wing. Feeds on aquatic insects, water plants, mollusca, &c. Builds amongst reeds, on the banks of rivers and morasses. Eggs eight or ten, of a greenish-white colour. The female differs from the male chiefly in the under parts being brown instead of white. The young "have the top of the head blackish-brown, all the feathers of the upper parts edged with reddish-brown, and the white of the under part clouded with a lighter tinge of the same colour."

Male and female, size of life, of the Alpine Redwing—*Tichodroma Alpina*, Temm.—Tichodrome échelette, *Fr.*—Picchio muraiolo, *It.*—Mauer Baumlauffer, *G.* These beautiful birds are well figured, and the colouring is exquisite. Inhabits the middle and southern portions of the continent, frequenting bleak rocks and mountains, and is found on the Alps, the Apennines, and Pyrenees. Its most favourite resorts are the ruins of castles and fortresses, where it may be seen hopping from stone to stone. Hence the name "Wall Creeper," which has sometimes been applied to it. This species moults twice in the year, and there is no very material difference between the sexes. The wing-coverts and part of the quills are of a bright crimson. It does not occur in Britain.

An adult and a young bird of the Red-throated Diver—*Colymbus septentrionalis*, Linn.—Plongeon à-gorge-rouge, *Fr.*—Rothkehliger Taucher, *G.* Nothing can be more beautiful than the plate before us. Both male and female, figured two-thirds of the natural size, are truly gems of ornithological painting. This is the smallest of the genus, but the most abundant, being common on the European coasts, and especially in the arctic regions of Europe and America. In winter it is plentiful on the coasts of Holland and England, and betakes itself to lakes and rivers when the seas are frozen. Feeds

on small fish, Crabs, &c., and, when it repairs to fresh waters, Frogs, Newts, and aquatic plants. Flight rapid and often long sustained. Breeds in Scotland, the Orkneys and Hebrides, and the northern shores of Europe, building a slight nest of grass, rushes, &c., on the borders of large lakes and morasses. Its two eggs are dark brown, blotched with black. The young do not attain the mature plumage till after the first autumn. The young bird was described by the older authors as the Speckled Diver, *C. stellatus*, &c., the white throat of the latter, and the speckled plumage of the back, having, apparently, caused the mistake.

Common Hawk—*Accipiter fringillarius*, Ray—E'pervier commun, *Fr.*—Sparviere da Fringuelli, *It.*—Gemeiner Sperber, *G.*—Male and female, nearly the size of life; both, but especially the male, are too highly coloured, and, like most of Mr. Gould's rapacious birds, wanting in boldness and vigour of aspect. Distributed over the whole of Europe, in many parts of which, as England, it abounds and superabounds; occurs also in Asia and Africa. Of a bold and intrepid character, feeding chiefly on the smaller insessorial birds, but also on Partridges, Pigeons, and young poultry, which it sometimes destroys in great numbers. We have known more than one instance of its darting after its prey into the windows of houses. It seldom misses its aim, but when this does happen, it repeats the stroke until its end is accomplished. The male is easily distinguished by its rufous throat and richer hues of the back. Constructs its nest at the tops of trees; eggs four, dull blueish-white, marked with angular red blotches. The Common Hawk delights in well-wooded and mountainous districts, where it daily destroys great numbers of small birds, mammalia, and reptiles.

An adult, in mature plumage and two-thirds of the natural size, of the Garzet Heron—*Ardea garzetta*, Linn.—Héron garzette, *Fr.*—Sgarza garzetta, *It.*—Straues Rieher, *G.* Mr. Gould's figure is a very good likeness. The Egret Heron inhabits the southern countries of Europe, Sicily, Sardinia, Turkey in Europe, and the islands of the Grecian Archipelago, being its chief habitat. A small number migrate annually to France, and sometimes to Germany; it is generally considered a British species, but only two or three individuals have been met with in this country during the last fifty or sixty years. Its food consists of reptiles, insects, fish, and mollusca, peculiar to its favourite morasses. The young bird, destitute of the graceful tuft which adorns the head of the adult, has been named the "Little White Heron," which, however, is not the bird of that name described by Montagu. In Egypt it is called

c“ Ox keeper,” from its associating with the cattle, and feeding on the larvæ with which the backs of these animals are infested. Nidificates amongst the herbage in morasses, and lays five white eggs. The colour of this handsome bird is pure white. We beg to suggest the propriety of removing this bird from the genus *Ardea*. It might stand as the *Garzetta pusilla*.

Haw Grosbeak—*Coccothraustes cratægus*, Blyth—Grosbec ordinaire, *Fr.*—Frosone commune, *It.*—Kirsch Kernbeisser, *G.* The male and female are represented the size of life. Both of them are too thick and heavy, but the head and bill of the female, in a difficult attitude, is lovely, and the colouring is good. Occurs almost throughout Europe, and has lately been discovered to breed in the south of England. It is now proved to be indigenous, and we agree with our author in thinking that its numbers must have increased considerably of late years in England. Mr. Blyth informs us he has a live female in his possession, and that he has seen several others in his neighbourhood. Feeds on slugs, berries, seeds, and the kernels of stone fruits, which it cracks with ease. It breeds in May and June, in Fir and other trees of various altitudes. The nest is shallow and loose, consisting of sticks interspersed with white lichens, and is lined with roots. It is stated to be even less compact than that of the Hedge Alp, *Pyrrhula vulgaris*. Eggs from four to six, pale greenish-white, spotted and streaked with grey and brown. The throat, cheeks, and head of the young are of a dull yellowish colour, under parts white, the flanks marked with brown streaks, and the upper parts spotted with dirty yellow. The female is of a more dingy hue than the male.

Two adult figures of the Marsh Hoopoe—*Upupa epops*, Linn.—Huppe commune, *Fr.*—Upupa rubbola, *It.*—Gebanderter Wiedehopf, *G.* The female, represented in the act of coming out of the hole of a tree, is admirable, but both figures would give an idea of much larger birds than is actually the case. Extends over the whole of Europe and Africa, and specimens have been received from India and China. Rare and irregular visitor to Britain, where, however, it has been known to breed occasionally. Builds in holes of trees, crevices in rocks, fissures in walls, holes in the ground, or dunghills. Eggs five, light grey, clouded with dark grey. Sexes and young similar. Feeds on insects, grubs, &c.

Tawny Hooter—*Aluco stridula*—Chouette hulotte, *Fr.*—Alucco maggiore, *It.*—Brand Kaute, *G.* An excellent figure, natural size. Inhabits the more extensive forests of the continent, but is rare in Holland; extremely common in England. Builds in the

holes of trees, preferring those which are ivy-clad ; sometimes takes possession of the deserted nest of a Crow, or other large bird, in which it lays its eggs, which are rather large, elliptical, and pure white. Feeds on Mice, Shrews, Moles, &c. *Syrnium* is apt to be confounded with *Surnia*, and, therefore, *Aluco* is preferable.

Common Pintail—*Dafila epilobium*—Dafile ordinaire, *Fr.*—Longuacoda commune, *It.*—Gemeiner Spiessen, *G.* In our opinion, these figures, representing a male and female, natural size, are decidedly the best in the Part ; the feathering is beautifully delicate. Inhabits Europe, North Africa, Asia, and the temperate districts of North America. Is a periodical visitant with us, and great numbers are annually caught in the various decoys, and sent to the London markets. Nidificates in extensive beds of reeds, concealing its nest in the thick herbage beside the water. Eggs eight, and greenish-blue. The sexes offer much the same difference of plumage as the Teal. Feeds on aquatic plants, insects, mollusca, &c., and is said to be delicate eating. It does not stay to breed in Britain.

Snowy Longspur—*Plectrophanes nivalis*, *Mey.*—Plectrophane de-neige, *Fr.*—Plectrofano nivolo, *It.*—Schnee Plectrophe, *G.*—Intended to be the size of life, but both the figures are far too thick and heavy. The young and immature birds were described, by the older writers, as the Tawny Bunting and Mountain Bunting ; but the observations of Selby and others have long since satisfactorily dispersed the mist in which this species was once enveloped. Inhabits Europe and America. Winter visitant with us, resorting to barren upland tracts. Arrives in October, and departs before the end of winter. Builds in the niches of rocks, or among large stones on the sea-shore ; the nest consists of dried grass, lined with hair or feathers. Eggs six or seven, pale flesh-colour, with small dots, and at the larger end blotches of reddish-brown. *Food*: the seeds of alpine plants, insects, and their larvæ.

Kentish Plover—*Charadrius cantianus*, *Lath.*—Pluvier de rivage, *Fr.*—Weisstirniger Regenpfeifer, *G.* Pretty figures, but they have too starved an appearance. The best plate we have seen of this species is in Mudie's *Feathered Tribes*. Common on the southern coasts of England, and likewise on those of France and Holland. Subsists on marine insects and Worms, which it finds amongst the loose stones. Lays its five yellow eggs, marked with irregular blotches of dark brown, on the naked sand, or among the shingles on the beach. The female is known by the absence of the black band on the forehead.

An adult individual, natural size, of the Siberian Jay—*Garrulus infaustus*, Temm.—Geai imitateur, *Fr.* This plate could scarcely be surpassed; it is perfectly alive, and is drawn and coloured in the best style. Inhabits the north of Europe, its soft and compact plumage being well fitted to enable it to brave the rigours of the severest winters. It is found in woods, and feeds on various wild berries, insects, larvæ, Worms, &c. Builds, in Fir trees, a nest consisting of sticks and grass, and lays five eggs. Both sexes are alike. This bird should not remain in the genus *Garrulus*.

Adults, in the summer and winter garb, of the Redshank Sandpiper—*Totanus calidris*, Bechst.—Chevalier gambette, *Fr.*—*Totana gambetta*, *It.*—Rothfussiger Wasserläufer, *G.* We much prefer the right hand figure to the other. Inhabits Europe, and is indigenous in Britain, frequenting the sea-coast or the borders of rivers and marshy tracts, where it constructs a frail nest in a tuft of herbage, and lays four eggs, greenish-yellow, spotted with brown, most thickly at the large end. The sexes are similar as regards plumage, but the female is somewhat larger than the male.

PART VI.—Merlin Falcon—*Falco aesalon*, Temm.—Faucon émerillon, *Fr.*—*Falco smeriglio*, *It.*—Stein Falke, *G.* An adult male and a young male, the latter agreeing in plumage with the adult female, are figured. Both these representations have the same faults which we have mentioned when speaking of Mr. Gould's other *Falconidæ*, but in this, as in every other case, the species intended would be recognized by the ornithologist at a single glance. This little Falcon is found throughout Europe, but is rare in Holland. In the south of England it is a winter visiter, but is resident in other parts. The male, in the mature plumage, which is attained at the third year, has been termed "Stone Falcon." Feeds on various small birds. Builds on the ground, or, according to some, in the holes of rocks and trees. Eggs, three to five, pale blue, spotted with brown, most thickly at the large end.

Blue Rockiet—*Petrocincla cyanea*, Vig.—Rochet bleu, *Fr.*—*Passera solitaria*, *It.*—Blaue Rodel, *G.* Male and female, natural size, in extremely stiff and unnatural attitudes, though the feathering is good. Common in the south of Europe, inhabiting rocky and mountainous districts. Habits shy and solitary. Builds in clefts of rocks, holes of walls, trees, &c. Eggs dull greenish-white. Subsists on Grasshoppers, berries, and the like. The female is much duller in colour than the male.

Great Reedling—*Salicaria turdoides*, Selby—Verderolle roussette, *Fr.*—Grosse Karakiet, *G.* A stiff and uncouth figure, repre-

senting an adult, natural size. Common in the low swampy portions of France and Holland. Sings sweetly. Feeds on Gnats, *Libellulidæ*, and other aquatic insects. Nestles amongst reeds. Eggs five, obtuse, pale green, spotted with black and grey. This species must obviously be removed from the genus *Salicaria*, and we could have wished that Mr. Gould had employed a less objectionable specific name than *turdoides*.

An adult, half the natural size, of the Black Stork—*Ciconia nigra*, Bellon.—Cicogne noire, *Fr.*—Cicogna nera, *It.*—Schwarzer Storch, *G.* A very faithful and characteristic representation. Inhabits the wooded and marshy districts of North Europe. Has been met with two or three times in England, and has occurred along the Caspian Sea. Feeds on small fishes, Frogs, Worms, and insects. Builds on trees, especially Firs.

Stone Chat—*Saxicola rubicola*, Bechst.—Traquet père, *Fr.*—Saltinselce moro, *It.*—Schwartzkehliger Steinschmatzer, *G.* Male and female, adult plumage and natural size; the male is the best, but the form of neither is good, and the tints are too bright. These little birds should have a more lively and active appearance. Found in Europe, India, and Africa; common in England; resident in Africa, but migratory in Europe; in England, however, it is indigenous. Habits well known.

Golden Eagle—*Aquila aurea*, Will.—Aigle royale, *Fr.*—Aquila leonata, *It.*—Gold Adler, *G.* We are far from admiring Mr. Gould's figures (of a young and adult, one-third of the natural size) of this noble bird; they have all the appearance of having been long cooped up in a cage. Common in the hilly districts of Russia and Scandinavia; less so in France, Italy, and Germany. Is found in Scotland, where, however, it is a rare bird. It is resident in this country. Builds in lofty rocks or trees. Eggs two or three, dull white, stained and spotted with dull red. Preys on Fawns, Lambs, Hares, and large birds. The immature bird has been described as the Ringtailed Eagle.

Ortolan Bunting—*Emberiza hortulana*, Linn.—Bruant ortolan, *Fr.*—Zivolo hortulana, *It.*—Garten Ammer, *G.* These are the worst of our author's figures which it has been our lot to criticise; the male and female, size of nature, are given, but neither of them can be said to be either handsome or characteristic. Inhabits Europe and North Africa. A few individuals have been shot in England. We think, with Mr. Gould, that it may occur more frequently, but has been mistaken for the Yellow Bunting. The nest is placed in hedges or low bushes, or on the ground, and consists of

fibres and leaves. The eggs are five, reddish-grey, marked with brown streaks. The female lacks the yellow and the reddish-brown tints which adorn the male.

Red-crested Pochard—*Fuligula rufina*, Steph.—Milouin siffleur, *Fr.*—Milouina col-ciuffo, *It.*—Kolben Pochard, *G.* Elaborately-finished and beautiful figures of the male and female, three-fourths of the natural size. Common over nearly the whole of Europe, but, unfortunately, very rare in this country. Feeds on small shell-fish, mollusca, the fry of fishes, vegetables, &c. The male is at once distinguished by the beautiful tuft of silky feathers which adorns the head and upper part of the neck.

Tawny Toadeater—*Bubo maximus*, Sibb.—Granduc brun, *Fr.*—Gufo reale, *It.*—Grosser Kuhu, *G.* A very fair representation of the adult, three-fourths of the natural size. Europe, especially Scandinavia, and the parallel latitudes of Russia, form its habitat. Rare in England. Preys on young Deer, Hares, Grouse, &c. Builds in the clefts of rocks or the holes of old trees. Lays three eggs, of a rounded shape and white colour. The female is known from the male by its superior size and brighter colour.

Adult male and female, natural size, of the Hobby Falcon—*Falcon hobereau*, *Fr.*—*Falco barletta*, *It.*—Baum Falke, *G.* Characteristic figures, but rather tame. Is spread over the whole of Europe, where it is migratory, passing to the south on the approach of the inclement seasons. It is a summer visitant in England. Feeds chiefly on insects, but also on small birds. Builds in trees or even bushes, and sometimes appropriates the nest of a Crow. Lays three dull white eggs, mottled with reddish-brown.

Pine Crossbill—*Crucirostra pinetorum*, Mey.—Bec-croisé des sapins, *Fr.*—Kiefern Kreuzschnabel, *G.*—Tannen Papegai, *It.*—Two figures, natural size; they are much too thick and large, and not otherwise characteristic. Is migratory in Poland, Russia, and Germany; very rare in France, Holland, and Britain. Feeds on the seeds of the Fir, for the extraction of which its bill is admirably adapted. This beautiful species, which has been called "Parrot Crossbill," is the type of the limited genus *Crucirostra*.

Ring Plover—*Charadrius hiaticula*, Linn.—Pluvier à-collier, *Fr.*—Piviere col-coliere, *It.*—Halsband Regenpfeifer, *G.* Too fat and dumpy, but otherwise good. Inhabits the temperate portions of Europe and North America, frequenting sea-shores and rivers. Breeds on the shore, amongst gravel and broken shells, and lays rather large eggs, yellowish-white, streaked and spotted irregularly with black, especially at the large end. Feeds on Worms and insects.



White Stork—*Ciconia alba*, Bellon.—Cicogne blanche, *Fr.*—Cicogna bianca, *It.*—Weisser Storch, *G.* A very good figure, representing an adult, half the natural size. Spends its winter in Egypt and North Africa, visits Europe in spring, but seldom ventures so far as the British isles. Common in the swamps of Holland, Germany, Prussia, France, and Italy. Breeds on the tops of houses, steeples, chimneys, trees, &c., the nest consisting of a “cumbrous mass of sticks and coarse materials.” Lays three pale yellow eggs. Feeds on aquatic insects and reptiles.

Pigmy Dunlin—*Tringa subarquata*, Temm.—Bécasseau cocorli, *Fr.*—Rothbauchiger Brachel, *G.* Pretty figures, of the natural size, but that on the left hand is somewhat stiff. Frequents the shores of Europe, Africa, and North America. Rare in England. Feeds on insects, Worms, crustacea, and mollusca. Builds near the edge of the water, and lays four yellowish-white eggs, spotted with brown.

Blackeared Chat—*Saxicola aurita*, Temm.—Traquet oreillard, *Fr.* The plate before us represents the male in the spring and winter plumage; more life might, we think, have been instilled into the figures, and they might have been placed in more natural and pleasing attitudes. Inhabits the hilly portions of southern Europe; in the north of Italy it is stated to be of more common occurrence than the Russet Chat. Of its nidification nothing certain is known.

Sandwich Tern—*Sterna cantiaca*, Gmel.—Terne caugek, *Fr.*—*Sterna di-becca-nera*, *It.*—Sandwische Terne, *G.* An adult and a young bird of the first year, natural size. The figure of the former is admirably executed, but we should pronounce the legs of the youngster to be rather stiffly set on. Is found on most of the coasts of the old world, and is common in some parts of Britain. It is one of our largest Terns, and is seldom seen in fresh water. Lays its two or three whitish eggs, marbled with brownish-black, on the bare rock or on the shingly shore. The young birds want the jet black head which characterizes the adults of both sexes.

Tree Redstart—*Phenicura albifrons*, Blyth—Rouge-queue demurailles, *Fr.*—Volgarama muraiola, *It.*—Baum Rothschanzen, *G.* It is a remark we have long made that this species is never well delineated, and the plate of Mr. Gould, representing a male and female, natural size, is certainly no exception to the rule, however much we may be disposed to admire the style of the engraving and colouring. The male is really a disgrace to a work like the *Birds of Europe*. But people are generally inclined to think fa-

vourably of their own performances, and we dare say our author considered his Redstarts well worthy of a place in his work when he had drawn them. All the Redstarts are confined to the old world, and the habits of the present species are well known to our ornithological readers.

Redlegged Chough—*Fregilus rufipes*, Auct.—Coracias sonneur, *Fr.*—Coracia di montagna, *It.*—Stein Corak, *G.* A very fair figure of the adult male, rather less than the natural size, but somewhat tame. The Swiss Alps, the Himalaya, and the rocky portions of the lofty mountains of Europe, are its favourite localities. In England it occurs in Cornwall, Devonshire, Glamorganshire, the Isle of Anglesea, and the Isle of Man. The late Dr. Latham informs us that a pair were shot, a few months ago, near Andover, in Hampshire. Breeds in the crevices of the cliffs, the nest consisting of sticks, lined with wool and hair. Eggs, three or four, greenish-white, spotted with green and grey. Feeds on insects, grain, and berries, and is easily tamed.

Collared Turnstone—*Streptilas collaris*, Temm.—Tournepierre à-collier, *Fr.* An adult male and a young bird are figured. They are well drawn, but they might have been engraved in a better style. Inhabits Norway, the shores of the Baltic, Africa, America, Melville Island, and parts of Britain. Feeds on insects, mollusca, and crustacea, which it finds amongst the stones on the sea-shore. The plumage of the female is less brilliant than that of the male.

Here endeth our analysis of the sixth part of the *Birds of Europe*, on the completion of which we beg to offer a few general observations on the character of the work. To commence then, like a true critic, with the *faults*. The figures appear to us to be in general too tame, the forms in many cases too thick and dumpy, and the execution in too soft, smooth, and subdued a style. This is especially observable as regards the *Falconidæ*, the Haw Grosbeak, and others; and the attitudes are too often far from natural. We marvel, too, that the author has not introduced the nests and eggs into the plates, which might easily have been done in the majority of instances. But if our perhaps too severe judgment has succeeded in scraping together a few faults, how infinitely heavier will the excellencies prove in the balance. When we consider that we had before no work containing good representations of European birds, and when we remember that Mr. Gould's delineations equal, if not surpass, anything of the kind that has hitherto been produced, the philosophic ornithologist ought to be truly grateful to our author for the admirable history of them here laid open to him. It is of a

convenient size, and will, of course, ever rank amongst the most splendid contributions to ornithological science. We are given to understand that only a few copies of the *Birds of Europe* remain unsubscribed for. We shall return to this subject in our next number, and hope to be able to present our readers with a critical analysis of two parts in each succeeding publication.

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## SOME REMARKS ON THE PHILOSOPHY AND OBSERVANCES OF SHAKSPEARE.

### V.—MUCH ADO ABOUT NOTHING.

MRS. JAMIESON, in her inimitable character of Beatrice, has so completely depicted the character of Benedict that one must possess almost a supernatural sight to discover any new feature. Beatrice and Benedict are so essentially similar that to think of one is to think of both. Twin stars of the zodiac, who owe their brilliance to their approximation—an "*ingeniorum cos*," as Burton expresses it, to each other. The only difference between them is owing, perhaps, more to the reader's prejudices than to any dissimilarity in the characters of Signior Montanto and Ladie Disdain.

Though Beatrice be the prima donna of wit and gaiety, and, as Mrs. Jamieson remarks, incomparable with the fine lady of modern comedy, yet that such a character belongs naturally to all women cannot be denied; the smart repartee, the sparkling satire, is peculiar to the sex; it arises out of the delicacy of their organization—a defensive weapon with which nature has endowed them. That few ladies are Beatrices is, perhaps, more the fault of selfish man than any incapacity in themselves. Holding the power by the most despotic of all titles, that of hereditary, he subdues the intellect of woman into a form and quality agreeable to his own inclinations. Thus, because man is too dull to encounter the nimble and sparkling wit of woman, he disables her by a mental restriction of the worst kind, and under the plea of modesty, becomingness, propriety, and all those terms included in the word amiability, she is taught, from childhood, to restrain every light-hearted word, lest she be betrayed into rudeness—every ingenuous repartee, lest it degenerate into pertness. Like the beautiful statue of Memnon, that seems no longer re-animated by the presence of its deity, every brilliant thought is concealed, every kindling emotion is suppressed, and wit, the most enlivening, reserved merely as a penalty for impertinence.

Even with Beatrice and Benedict, however favourably Mrs. Jamieson excuses Benedict, he is no match for dear Ladie Disdain:—with him wit is, in great part, an acquirement, and no little does he owe to the celerity of his circulation. Benedict is constitutionally smart, with fine humour, and just enough waywardness to be agreeable. Beatrice is *sexually* witty; her fancies cluster in her mind brilliant as dew-drops in the sun—a grotto radiant with the light of its own thousand gems. Benedict was, happily, born with a wide capacity for enjoyment, a heart the bravest and the most sensitive; one who can cry and curse at the same moment—the slave of affections that he would conceal by ridiculing. Were Benedict and Beatrice insensible to love they would satirize it less; they are both ashamed of their own propensities. Extravagance springs not from indifference; they are too excessive in their aversions to be careless of the object.

Benedict and Mercutio are similar in many points—lively, humorous, and satirical; but Benedict is not so refined. There is a sullenness in Benedict, in Mercutio there is a perennial cheerfulness. It is not too much to say that the most miraculous genius of Shakspeare is an image of the *All-creative* Deity. No other embodied mind could ever approach him in the universality and individuality of his genius. Like the infinite shades of the human countenance, which, however similar, are never the *same*, Shakspeare has distinguished every character by a peculiarity differing from every other; so that, however resemblant, they are never identical. Benedict is inferior to Beatrice: had she been coupled with Mercutio, she would have been silenced by the innate consciousness of his intellectual superiority. Mercutio could never have loved Beatrice—she *must* have loved him. Benedict turns misogynist from love; and after all, though they may be “too wise to woo peaceably,” yet that Benedict will not escape the “predestinated scratched face” I do not think. I rather believe that a Beatrice, as a wife, however “pleasant-spirited,” would soon feel less witty and more fond, and that a Benedict would become, if not uxorious, yet a tender, quiet-spoken husband—

“Supremely blest if to their portion fall  
Health, competence, and peace.”

W.

[We are reluctantly compelled to limit the “Remarks on the Philosophy and Observances of Shakspeare” to the above brief sketch of Signior Montanto. In our next number we shall, however, have the pleasure of presenting our readers with a continuation of the series.—Eds.]

## AN ACCOUNT OF TWO NEW CRUSTACEA FROM THE TRANSITION AND CARBONIFEROUS STRATA.

AMONG all the relics of former worlds, there is, perhaps, none that has more exercised the ingenuity of both naturalists and geologists, in the determination of its original and perfect form, than the remains of a crustaceous animal belonging to the transition strata known by the various names of *Entomolithus paradoxus*, *Trilobite*, and *Dudley Locust*. The earliest appearance of this fossil is in the Llandilo Flagstone, from which it extends upwards, through most of the intervening strata, into the Fullers' Earth, according to Mr. Parkinson, which is a formation above the Lias, and beyond which it becomes perfectly extinct. It seems to have been almost the sole representative of the extensive class of crustaceous animals through all this numerous series of rocks, whose deposition (to judge from the thickness of some of the layers, which are above five hundred feet) must have occupied immense periods of time. *Trilobites* belong to the class of *Entomostraceous* crustacea of Cuvier, and to the order of *Pacilopoda*, so termed from the varied form of their locomotive apparatus, some of which serve for feet or swimming organs, and the others, being furnished with fringed appendages, perform the office of gills. The other *Entomostracea*, with which the *Trilobites* are associated in certain of the strata, belong to the genera of *Cypris*, *Eurypterus*, and *Limulus*, which last possesses considerable analogy to certain genera of *Trilobites*. To omit the hypotheses of other distinguished naturalists and geologists, as Cuvier, Audouin, Goldfuss, and A. Brongniart, &c., Dr. Buckland (*Bridgewater Treatises*, No. 6) has endeavoured, with great success, to elucidate the structure of the *Trilobites* by a reference to their affinities in the genera *Serolis*, *Limulus*, and *Branchipus*; and as one of the fossils I am about to describe is analogous, in some respects, to these animals as well as to the *Trilobites*, it will be necessary to give some account of them before instituting a comparison between them and the specimen. For if we assume the recent genus *Serolis* as the type of this class of animals, we appear to pass gradually from its more perfect structure to the rudimentary form, (at least, apparently such,) of the *Trilobite*, through the intermediate genera of *Limulus* and *Branchipus*.

The *Serolis* (*ibid.*, pl. 45, fig. 6), in size and general appearance, resembles a small Crab. It is furnished with antennæ or horns, and with two claws. Its eyes are placed upon its back, and, like those of most of the animals I am describing, resemble the com-

pound eyes of insects. Its body is composed of several plates folding over each other, which, like the joints of the Lobster's tail, admit of considerable motion. They are prolonged laterally, so as to form a serrated edge to the body on each side. Its legs correspond to the number of the plates, at least of the projecting ones; and beneath the tail are a number of fringed appendages, which perform the office of gills. The *Serolis* is found on both shores of the Atlantic.

The next genus, *Limulus*, or King-crab (*ibid.*, pl. 45, fig. 1), usually wants the antennæ, dorsal plates, and ribs of the *Serolis*; Its body is formed of a shield, consisting of two plates jointed transversely—the anterior semi-circular, the posterior triangular and terminated by a pointed tail, and its edges serrated and set with six spines on each side. It has four eyes—two compound close to the division of the shield, and two simple eyes, lying more in front, close to the median line. Its antennæ are very small; but it has twelve legs, and ten paddle gills. Its habitation is confined to the warm seas of India and America.

The third genus, *Branchipus* (*ibid.*, pl. 45, fig. 4), is the animal with which many persons are familiar from its exhibition in the solar microscope, where its agility, voracity, and the extraordinary vibrations of its paddles and tail, while the body was at rest, were remarkably striking. It has no proper feet or legs, but its members, and even its tail, being fringed with gills, answer the purposes of organs of locomotion and respiration. It possesses antennæ, and inhabits fresh water.

Lastly, the *Trilobite*, (*see plate*, fig. 1), imperfect as it has hitherto been found, presents some of the characters of the two former genera, and, according to Brongniart, there is great reason to believe, of the latter also. Thus, it has the jointed body of the *Serolis*, and the large anterior plate or shield of the *Limulus*, and in some species the tail; but it has neither antennæ, legs, nor gills, though M. Brongniart conceives that it did possess the paddle gills of the *Branchipus*. Mr. Parkinson also believes that he has detected the existence of legs in one specimen, and M. Goldfuss gives some sections of a *Calymene* in which not only the presence of a ventral as well as a dorsal plate is clearly established, but also that of certain members, but whether these are legs or paddle-gills is not so evident. This account in vol. xv. of the *Ann. des Sc. Nat.*, seems to have escaped the attention of English geologists, for Dr. Buckland says decidedly, that no *Trilobite* has been found possessed of legs or antennæ. All these classes of animals are aquatic.

*Trilobites* consist of a thin oval plate of calcareous matter of various sizes, from half an inch to seven inches long, closely set with minute tubercles similar to those on the shell of the Crab. This plate is formed of many portions, the anterior of which, containing the eyes, is of a semicircular or crescent shape, and is called the shield; and to it are jointed a number of other plates like those on the *Serolis*, which, being crossed by two longitudinal grooves, together constitute a three-lobed tail, from which the fossil derives its name. The edge of the shell is turned inwards all round on the under surface, and hitherto no abdominal plate or members have been discovered. The eyes have been rarely found fixed in the shield, as they drop out, leaving an appearance of gaping eyelids. They are crescent-shaped, with the convex surface directed outwards, and are compound, as in the above-named genera, consisting of about four hundred facets or ocelli. From the close resemblance in the structure of the eyes of these animals, Dr. Buckland takes occasion to remark upon the permanence of the laws of nature from the earliest periods of which Geology supplies us with the records, when the earth was not yet fitted for the habitation of any animals higher than reptiles in the scale of organization, to the present time, when the earth teems with beings made in the image of the Creator, and but little lower than the angels.

In this neighbourhood shields and tails of *Trilobites* are very abundant in the thin upper layers of the Dudley limestone, but the finer and more perfect specimens are chiefly found in the lower and thicker beds. They are also met with in ironstone nodules at Coalbrook Dale.

*Trilobites* have been divided, by M. Brongniart, into five genera, which M. Latreille has distributed into three groups, viz., reniform or kidney-shaped, *T. agnostus*; contractile or folded, *T. calymene*; and extended or flat, *T. asaphus*, *T. ogyges*, and *T. paradoxoides*. *Agnostus* is of a semicircular shape; *calymene* rolls itself up like a Wood Louse, and its segments are not extended laterally; *asaphus* has a lengthened tail (see *Bridgewater Treatise*, pl. 46, fig. 11); *ogyges* has a long shield extended backwards on each side to a point (*ibid.*, pl. 46, fig. 9); and *paradoxoides* has no appearance of eyes, and its plates are extended over the side, like those of *Serolis* (*ibid.*, pl. 46, fig. 8).

Such are the chief generic characters of the *Trilobite* family given by Cuvier (*Règne Animal*, t. iv.), but they are not very distinct; and Dr. Buckland has recently added *Limulus* (*Agnostus*?) to them by the name of *Limulus trilobitoides* (*ibid.*, pl. 46<sup>2</sup>,

fig. 3). The number of genera hitherto described are 10, and of species 52. The specimen I now describe (*see plate, figs. 2—3*) seems to combine the characters of *Serolis*, *Limulus*, *Agnostus*, and *Paradoxoides*, with others peculiar to itself. It is enclosed in an ironstone nodule from Prior's Lee, in Shropshire, where the strata are far richer in organic remains, both animal and vegetable, than the Staffordshire coal basin, and it was from thence that Dr. Buckland's *Limulus* was derived. Some vegetable remains are visible on the exterior of the nodule. The accompanying figure is of the natural size. The lime, as in most calcareous fossils enclosed in ironstone, is in a crumbling powdery state, and is left white in the figure. The antennæ are very distinct, but the central anterior projection is not clearly defined, although, like the antennæ, it has a kind of tubercle at its base. The ribs or plates, with their lateral prolongations, are very evident; the two anterior being connected by a web into a kind of fin, which is readily distinguished from the prolongation of the shield observable in *Limulus*, *Ogyges*, and *Paradoxoides*. The surface of the specimen, from which the lime has crumbled away, is covered by minute crystals, and does not exhibit the tuberculated appearance of the surface of the *Trilobites*. The lateral projections are slightly grooved, and taper to a point. There is no appearance of eyes in either of the two specimens I have seen, unless the central projection is considered as such. The last of the elevated dorsal segments is remarkably prominent, and is quite distinct from the tail. The number of segments is six, extended laterally into as many ribs, terminated by a like number of legs, or more probably fin-rays or spines, for they exhibit no traces of a jointed structure.

Thus, in possessing antennæ it resembled the *Serolis*; it had a tail and lateral spines like the *Asaphus* and *Limulus*; its shape was that of *Agnostus*—*i. e.* extended laterally, not lengthwise; and it was devoid of eyes like *Paradoxoides*; which it also approached in the extended points of its shield. Judging from a note of Cuvier (*Règne Animal*, t. iv., p. 204), it closely resembles the description of the *Paradoxoides* of Rasoumowski.

The figure, (No. 4), is taken from an imperfect specimen of the shield of a crustaceous animal from the Dudley limestone. The spine or antenna is very distinct, but the other parts, having been much rubbed, are restored, as far as possible, from the cast. Its shape is that of a rounded oblong, arched and mammillated, and having an elevated margin; the whole surface, except the antennæ, is covered with the same minute tubercles that are observed on the



*Trilobites*. From these, however, it is distinguished by having an antenna ; and it is only introduced here to turn the attention of the curious to the fact of the co-existence of undescribed *crustacea* with the *Trilobites* in the Dudley limestone. The writer instead of availing himself of the kind permission of Dr. Buckland to copy the plates in his *Bridgewater Treatise*, has referred to the several figures in that admirable work, which is doubtless in the possession of the readers of *The Analyst*.

W.

## REMARKABLE CURES EFFECTED BY GYMNASTICS.

BY JAMES CHIOSSO.

IT is an opinion almost universally entertained, that gymnastic exercises are either useless or dangerous ; but I feel convinced, from experience, that this arises from a want of knowledge of such exercises, or, as is also often the case, from the injudicious method of employing them. Thus, every accident which happens in schools of gymnastics is charged against the science, instead of against its instructors. It is not, however, my intention in this place to enlarge either upon the objects of gymnastics or to detail the most approved modes of employing it. At present I merely wish to establish, by the recital of a few cases, that gymnastics might frequently afford a ready means of cure where the most experienced of the faculty would be compelled to confess their inability to remove the disease.

CASE I.—A boy\* of a lymphatic temperament, fourteen years of age, afflicted with palpitation and pains of the heart, was brought to me in April, 1833, to see whether my system of gymnastics could be of any benefit to him, he having been previously given up by the profession. The palpitation was so violent that he could neither rest nor sleep at night, he had lost his appetite, his left side was three-fourths of an inch higher than the right, and the left shoulder was somewhat more elevated than the right. This led me to suppose that the vertebral column must be affected also. I

\* Lest the authenticity of these cases should be suspected, it may be as well to state that we can answer for the truth of the whole of the details recorded by our correspondent. Mr. Chiosso receives no remuneration for his services ; that he is not one of the race of quacks now unfortunately so numerous, must, therefore, be apparent to our readers.—Eds.

therefore made a careful examination of the body, and found, as I had expected, that the fifth, sixth, and seventh vertebræ of the back were somewhat unnaturally out of the perpendicular. Being now in full possession of the case, I immediately began to apply a course of exercises, with a well-regulated diet, and without having recourse to any medicine whatever. At the expiration of three months, to my satisfaction, and still more to that of the boy himself and his parents, who had but little hopes of his recovery, he returned home perfectly cured. In two months more he went to school, to continue his education, which had been interrupted by his malady. I had the pleasure of seeing him in June last, perfectly well. He was then as well formed as any young man of his own age could be.

CASE II.—On another occasion I was requested to see a boy of three years old, of a lymphatic temperament, who could not walk, or even stand. His parents were greatly distressed, for they had consulted the best doctors in the neighbourhood, but without benefit. I desired the mother to undress the child, and on examining him found that the complaint consisted in a slight prominence between the last dorsal and the first lumbar vertebra. The child experienced a little pain during the examination, and especially in the region of the above mentioned vertebræ. Upon the whole, I concluded that there was a touch of the rickets (*rachitis*), but I believe the bones were perfectly sound. I then planned out the system to be pursued for the malady, especially taking care to administer the requisite physical exercises. The anxious parents performed every thing recommended, and at the end of two months the child was able to walk without the least assistance; indeed, after the third month, namely, in September, 1834, he had so far recovered as, on seeing me coming, to run and meet me. He was henceforth perfectly well.

CASE III.—This, also, is a case of no small importance. A young lady, about twenty years of age, who had been confined to a sofa four years, in consequence of a fall from a horse while residing in the neighbourhood of London, applied to me as a last resort, thinking that my gymnastics might, possibly, be of some service to her. This case was widely different from the others, and, I should say, much more difficult to cure. As no external injury was apparent, I began to examine her back, requesting her to let me know when I caused her any pain. I soon discovered that the tenth, eleventh, and twelfth dorsal vertebræ, and the first lumbar vertebra, were the seat of the complaint, as she could not bear the slightest touch on these parts without screaming. It thus became proba-

ble that some of the intervertebral cartilages, particularly those of the above named vertebræ, had been injured in the fall, and had, moreover, lost their healthy tone in consequence of the four years inactivity. Here the exercises were different from those recommended in the former cases, as I could discover no outward injury, and as the patient appeared to be in a good general state of health, though rather thin, from the long confinement. I ordered her parents to procure a machine something like a sedan chair—of which I gave them a plan—in which she was to ride out every day when the weather would admit; likewise to use some other gentle exercises in doors, frictions, lotions, and a strict diet, without any kind of medicine. At the end of three years she was perfectly well, to the great joy of herself and her parents, who had lost all hopes of her recovery.

So much for a well-digested system of exercises, founded upon the laws of Physiology. To enlarge on the precise means I adopted, or to detail all the cases I have successfully treated, would here take up too much space, besides being tedious to many readers of *The Analyst*. My sole aim has been to prove the incalculable importance of gymnastics in a variety of cases beyond the art of medicine. Gymnastics, if judiciously taught at every school, would produce a material improvement in the health and strength, both mental and physical, of the scholars.

*Campsall Grange, near Doncaster.*

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## HANNAH DYER.

“A profound thinker has said, that the man of genius is he who retains, with the perfect faculties of manhood, the undoubting faith and vivid impressions of the child.”—*Noctes Ambrosianæ*, No. 39.

AMONG the children of men there is not a more miserable being than he whose sense of existence is bound up and contracted within the *present*—who beholds himself as existing only in the *now*, without any affinity with the past or the future; a mind indurated by custom, a heart blasted by prejudice, sterile to every generous emotion; with whom thought is annihilated, and sensibility transformed into the insatiable cupidity of selfishness. His pleasures, his pains, are negative; he knows no change, he warms by no sympathy, he never smiles nor weeps, but lives in the dead rotation of a

perpetual monotony. Spontaneity and freewill are terms significant of nothing ; he lives and moves with no reference to others ; the bestial degeneration of a thinking being into a living automaton.

“ A Cowslip on a river’s brim  
A yellow Cowslip is to him,  
And nothing more.”

Everything is “ nothing more ” than the mere presence of an existing object. The green earth or the foaming ocean possess no beauty nor grandeur, but are the commonplace objects of his senses ; and, worse than all, there is no redemption, since he is insensible to the loss. But whence could spring so horrible a malediction ?—from the disruption of the continuity of his life. Infancy, boyhood, youth, and manhood, succeeded each other, not as nature ordained, by an insensible subsidence, each change succeeding unperceivably in their gradual progression, but divided from each other by habits enforced with every period ; infancy with its fine impressions, boyhood with its happy hopes and fancies, youth with its susceptibilities and warm and wild desires, were successively flung aside, as a dried leaf from the stem that nourished it. There is no memory of the past, no hope for the future.—We owe our intellectual affluence to the successively perpetuated impressions of boyhood ; the root is in infancy—the flower that “ spirits odorous breathes,” buds and blossoms in manhood. The wants of childhood become the hopes of youth and the ambition of age ; the difference is only in their extension. It is only when the stages of life are bound together by these insensible intercommunities, until the first and second childhood, like a circle, approximate in their impressions—an emblem of that eternity of which existence is thus a type—that we become regenerated spirits “ like unto a little child ; ” when the memory of our childhood brings tears into the eye of age, and reciprocates us with ourselves by a perfect harmony.

“ My heart leaps up when I behold  
A rainbow in the sky :  
So was it when my life began ;  
So be it now I am a Man ;  
So be it when I shall grow old,  
Or let me die !  
The Child is Father of the Man ;  
And I would wish my days to be  
*Bound each to each by natural piety.* ”

Charlton, the village of Charlton, was, twenty years since, among the few really legitimate villages which were left us as a record of the "good old days." Situated between two and three miles from one of our most fascinating and fashionable watering places, and a mile from the great metropolitan road, it offered to the invalid one of the most agreeably restorative spots. The village small—the cottages low, thatched, and smiling with flowers—the old church and its ivy-bound tower—the village church-yard silent and solemn—the sandy lane o'ergrown with briars, brambles, and the ebon-stemmed hawthorn, the only carriage-entrance to the village—the old grass-tufted walks under the emerald-leaved Chestnut trees—the large expansive fields and ploughed lands, surrounding the village on all sides, luxuriant with verdure and richest crops—the well-wooded landscape, dell, and bosky bourn—the not far distant hills, their base rising in a semi-amphitheatre around the village, their barren rocky steeps, hill above hill, gemmed with the golden blossoms of the rich Heath and prickly Gorse—the straggling Pine standing out like some dark shade of the primeval world, or, clustered together, weaving their blackened branches in each other—all together offered a scene the most varied, the most beautiful.

Scarcely a quarter of a mile from the village was Prynne Park, with its broad bubbling river brawling over the chafed bed; the herd of dappled deer startled by the shrill whistle of some little urchin peering through the pales; then the aristocratic cawing of hundreds of ministerial rooks, perched on the topmost branches of a cluster of fine old Elms; the spacious antique mansion occupying an acre of ground, with the green wide-extending park stretching o'er hill and dale for many a mile. There was a silence around all that might be felt, deepened by the long caw, caw, of great-grandfather Crow, who, with his long black bill pushed out to its full length, might be fancied a lineal descendent from William the Conqueror.

How often have I seen the pallid cheek of the fair and lovely victim of consumption warmed with the quiet sense of her enjoyment as she gazed with lustrous eye upon the profuse luxuriance of nature! O! there is a blessing in all the dispensations of God:—disease, with all the suffering of the body, subtilizes the spirit that inhabits there, quickens the sensibilities of the heart, and purifies the thoughts from all grossness. There, far from the hum of men, Nature, with her still small voice, held communion with her heart, and by a divine inspiration quickened immortal hopes.

There my infancy, my boyhood, was passed, there my natural wild dispositions were softened. I knew

“ —— each lane, and every alley green,  
Dingle, or bushy dell ——,  
And every bosky bourn, from side to side  
My daily walks and ancient neighbourhood.”

And if I gazed, as I often did, on the purple boundary of the far horizon, and wantoned in my dreams, I felt that I was happy,—it was a positive sensation—my thoughts were feelings. Years have passed away, my heart has been hardened, I have gained knowledge by suffering, I have passed into other lands, and beheld the children of men engrossed alike in their nefarious projects; but with all the varieties of the species, under every clime, the heart is still the same.

After many years absence I visited the gay town of ——, with its palaces and villas, terraces and gardens, walks and embowered groves—a most gorgeous combination of nature and art, a scene so full of life that it might cheat even death himself, in whose bright sky music floated like a native elemental breath. From scene to scene I wandered—associations crowded round my mind—I drew myself aside, and wept. I was alone, a stranger on my native earth!

I fled the refined sensuality of groves and walks, and almost imperceptibly pursued my way towards a spot where at least I might undisturbed indulge my sadness. The day was fading into the purple light of evening—it was a calm delicious hour, hushed and still; the grey-coated Gnats hummed round me as I entered a large field which, though now sadly deformed by *improvements*, still encompasses one side of Charlton. Where once was only a narrow path across fifty acres of ploughed land, formed by the transit of the villagers, I found a long, white, stony road. Luckily the old stile at the end was in view, or I should have returned, sick with improvements, afraid that not even the hills and their Gorse-blossoms were left untouched. Suddenly I remembered a low thatched cottage across the lane beyond the field—it was still there: I fetched breath—there had lived Hannah Dyer! I quickened my pace as I uttered her name: is she alive? perhaps married, perhaps poor—miserable. Hannah Dyer!—with that name how many associations of my young life were conjured up! The most eventful period of my existence was a blank, the stirring events which had transpired in the years of manhood were all forgotten as the jarring chaos of a dream; I awoke as from a feverish delirium—I was a boy again.

Hannah Dyer! she was the only child of her mother, and “she was a widow” whose decline of life, with all her sorrows—and they

were sair—was softened down by the silent, changeless love of her child: for though Hannah was then a woman in years, her soft, bland, and soothing affections—her artlessness and innocence—made her still a child to her aged parent. The few wants which, in their retired life, they required, were easily supplied by the industry of Hannah, and even furnished those little luxuries which betray a delicate and sensitive mind. The low thatched cottage, almost concealed beneath the clustering branches of the fruit-trees, the patch of garden, parted tastefully into plots for ornament and utility. As I remember, Hannah's flowers were the most beautiful, the most odorous; few exotics—but filled, like her own heart, with the blossoms of her native land: faint and blushing in their own beauty, no flowers seemed to bloom so richly in their varied hues, as the Roses and fan-leaved Pinks in her garden. She tended them and loved them, and in the icy winter's day she did not forget in the low frost-bitten leaves and roots, the sad remains of those delicious flowers; she covered and protected them with constant watchfulness, for they were a natural image of her own heart, whose first and only brightness had been sullied, and her summer hopes destroyed, by a more withering breath than the wintery North. The tale of her sorrow has, unhappily, too many precedents—she loved and was forgotten. Hannah was not a creature of waywardness and passion, whose love, as the lightning, consumes, or of fickle affections with neither faith nor feeling: her love came silently and sweetly upon her heart, without its jealous excesses, it occupied every feeling that might be given to the creature without sin to the Creator—to love once was to love for ever. After the first gloomy prostration of her spirit, collapsed beneath the dead pain of her disappointed hopes, she recovered from the selfishness of her sorrow to make peaceful the last days of her mother, who now was the only tie between her and earth. She never repined—she seldom wept—and if her step was slow and her look sedate, there was in her pale face no reproach; the complexion of her thoughts was peaceful—her hope was in God.

Such is a slight pourtrayment of her whom, when a boy, I used to visit once or twice every week, with one whose custom it was to go and hold sweet converse of heavenly things. I never listened to those low breathings of holiness but I became, for the time, devout; it touched the poetry of my young heart: and as I gazed upon the pallid face of Hannah, her eyes cast down in modesty before the elder, her thin hands modestly folded on each other—to hear her muttered response following the deep *Amen* of the poor old widow,

as my father, with his face a little raised and his eye up-turned, as if he were looking into the mystery beyond the grave—would dwell on the promises of the Gospel, his deep whispering words flowing on as by a divine inspiration, raising us by our sympathies beyond this world. Then the tears came fast into my eyes—for weeping was then a gladness—as I looked upon his benevolent features, irradiated with the ardour of his devotion.

“Compared with this, how poor religious pride,  
In all the pomp of method and of art,  
When men display to congregation’s wide  
Devotions every grace, except the heart.”

So sung the sweetest songster that ever lived, so have I often felt when kneeling on the gay cushions with my gold-bound books and bands before my cen—one among a throng of insensible worshippers—listening to the “pompous strain,” the bowings and ceremonies, and sacerdotal robes, plucked from Aaron’s old wardrobe.—These thoughts rushed through my mind as I walked tardily on towards the stile; the green and briar-choked lane passing beside the cottage was before me. I laid my hand tremblingly on the wicket—a hasty glance at the garden realized my fears—her hand had not bound up the long ponderous-headed flowers—they hung neglected on the earth, soiled and trodden down; weeds choaked the ground, and mingled mockingly with the choice blossoms of the garden. I heard a suppressed talking in the little room wherein we used to meet—there was more than one voice. I listened a moment and then advanced, giving a hasty look through the latticed panes; several persons were in the cottage. I stood a moment before the unopened door—I gazed on the white walls, on the honeysuckle flowering round the casement; softly and fearfully I moved my hand towards the latch, which, however, I dared not raise; I only laid my finger lightly on it, and, with my eyes rooted on the ground, stood in motionless anxiety; my arm dropped heavily down as, with a sigh, I would have turned away. Some one lifted the latch—my heart leaped up—I felt suffocated. In the middle of the room, surrounded with six or seven decent young men, was a coffin supported on two chairs. No one questioned me;—there was a grief in my look which told them I was a mourner. I bent my head beneath the door, and, standing by the coffin I read on it the name of—Hannah Dyer! My heart was swelled with bitter sorrow—my tears fell on the coffin



lid. There lay all that was once so dear to me, with whom I had listened to a voice long since hushed for ever. I stood as one entranced, rapt about with the incense of my own thoughts ; a stir among the young men called me to myself. They were decently arrayed in black, the long white silk bands and ribbon bows betokening the chaste character of her who was gone. The heavy tones of the village church bell, which I had so often heard, fell slowly on my ear ; the bearers disposed themselves on each side of the coffin—the two last had just gained the door—I started—the mourners ! there was none to mourn. I hastily followed—stooping, I plucked a drooping rose ; and as I walked at the foot of the coffin with the flower in my hand, the little children of the village, the young maidens, and the aged carle, looked in my face and wondered—for I was the only mourner. Beneath the shadow of the sombrous Yew-tree her grave was dug ; the young men made way for me to stand by the grave's side as one that loved her, though they knew me not ; the earth from the old clerk's hand sounded heavily on the coffin : "Blessed are the dead which die in the Lord." I looked up through the clear twilight of the starry evening ; the tears filled my eyes as I repeated aloud, "Blessed are the dead which die in the Lord ;" and the young men wept. I stood alone by the grave until the sand was being rudely thrown in ; I returned to the cottage, which had been deserted : I sat down—and there, self-communing in a spot so sacred to goodness—wherein I had not stood for fifteen years—I recalled the long past, the present ; I recognized those first impressions which now came upon me gentle and pure as dew on the flowers of Eden. I was startled by a sheeny light striking into the darkening room—the cold rays of the chrystal moon shone upon the lattice panes—I looked around, and cast a long and lingering glance upon every object—upon those flowers that would no longer be cherished by her—upon that sweet garden that would know her no more for ever. The moon's beams reached not the grave, but silvered the dark sepulchral branches overshadowing it. There was no voice to startle the silence, no eye to mark me : there I sat long and thoughtfully, until the clock, with its time-telling tongue, awoke my consciousness. I looked upon the withering rose—it was all that remained of her who is dead.

The worn and weary pilgrim may purify his conscience by his toilsome journey to Mecca ; or the little less rational christian absolve his soul by bodily penance, or excite his religious ardour by a superstitious devotion : when that my heart is hardened by the

world, and sin and suffering encompass me, I will visit the grave of her who is in heaven ; and as I read on the plain stone the name of Hannah Dyer, I shall be regenerated by impressions which exalt and purify my heart, matured to penitence and peace by the faint stirrings of that better spirit which cannot be quenched.

W.

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## PROCEEDINGS OF PROVINCIAL SOCIETIES.

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### MANCHESTER NATURAL HISTORY SOCIETY.

WHEN we examine the causes that operate in producing the rise and fall of empires, and the varied agencies that have aided in bringing the world to its present moral and intellectual condition, we pause with feelings of pleasure to reflect for a moment on the origin and progress of our scientific institutions. The statesman wields the truncheon of command, and the warrior leads devoted thousands to an early death : but these in vain attempt to join nations in bonds of friendship : some jealousy discovers a new cause for quarrel, and, for trifling reasons, contending people again meet in all the hateful array of war. What these powerful agents fail to accomplish, is achieved by the humble hand of science. Its votaries, pursuing their peaceful discoveries, form connections and friendships which national quarrels in vain try to interrupt. Their interests and opinions (devoid of prejudice) seem apart from those of the world ; and when this happy communion becomes more extended, that national hatred, so injurious in its effects, will disappear from the face of the earth—we shall no more hear such epithets as the too common one, “natural enemies,” but know and feel that our greatest blessing is universal peace and universal friendship.

In producing and strengthening this silken tie between one nation and another, our philosophical institutions stand pre-eminent. Alike formed and supported by a numerous concourse of people, they must in time exhibit effects upon public opinion. Here, individuals of opposite political principles (those banes of private friendship) meet together ; they alike communicate and listen to communications of discoveries : the harmless discussions which ensue, strengthen, rather than interrupt the happy feeling, and they separate with the full conviction that this is an arena on which persons of all ranks, all principles, and all nations may meet in friendly and agreeable intercourse.

As in many other instances, comparative trifles first led to the

formation of a Natural History Society in Manchester: some of the inhabitants of that large and populous town had long contemplated having an additional institution to the one already proceeding so successfully under the auspices of Dalton—some society where collections of all the rich and varied objects of creation should be brought together; where, even in the centre of a commercial town, the admirer of Nature might study the beauties of the inhabitants of woods and wilds—might at once transport his thoughts from the busy scene of bustle and turmoil with which he was surrounded, and for a time revel amidst the productions of distant climes.

An opportunity at length offered itself for carrying this design into effect: in 1821, a collection of birds and insects—the former comprising many rare and valuable specimens—were offered for sale; a small body of spirited individuals met and agreed to purchase them, and these specimens became the nucleus around which were to accumulate the now splendid collections of the Manchester Natural History Society. The insects had been collected some time previous by Lee Phillips, Esq., and at that period, when collections of natural objects were more rarely formed, exhibited a valuable assemblage both of foreign and British specimens. The most complete department was that of British *Lepidoptera*, which, even at the present time, is highly valuable. Amongst the birds were many of considerable interest, especially some rare specimens of *Myotherinæ*. The greater part were collected by M. Freyreiss, who was employed by a society of Vienna to collect specimens in South America, where he staid some years. After his employers were supplied with the more valuable results of his labours, some of the duplicates came into the possession of the late Mr. Robinson, from whose friends, on his decease, they were bought by the gentlemen who thus first commenced the Manchester Natural History Society. This purchase being made, it was necessary to adopt some measures for the preservation of the collection, and to endeavour, as soon as possible, to obtain additional contributions. A room was taken in Cross-street, St. Ann's Square, and Mr. T. Harrop was appointed to take charge of the specimens, and stuff such birds or other animals as were sent in.

No addition of great importance was made until the latter part of 1822, when the collection of minerals belonging to Mr. Strutt, of Derby, was purchased; at once filling up, to a certain extent, a department of the highest importance, and one in which the Society was very deficient. This collection being obtained, the museum took at once a higher rank. The visitors were gratified by the interest they found in the specimens, the increased variety affording a more ample field for study and contemplation.

A gradual accession of specimens was made during the years 1823 and 1824, especially in the department of foreign Ornithology, which rapidly increased. The proximity of Manchester to Liverpool, where ships were daily arriving from all quarters of the globe, bringing with them specimens and illustrations of every de-

partment of the vast field of Nature, gave the officers of the institution great advantages ; and of these they availed themselves in the most active and persevering manner, each endeavouring to vie with the rest in promoting the prospects and ensuring the success of the society. The apartments occupied now became much too small for the proper display of the property as well as for the general accommodation of the society, and consequently, in 1825, they removed to a more convenient building in King-street, where two large and well-lighted rooms contributed much to the good appearance of the specimens. The chief deficiency consisted in the want of a conchological collection, and to remedy this an extensive one was purchased from Mr. Swainson, which, however, was almost entirely composed of foreign species.

No addition of particular importance was now made for some time, but a variety of contributions were received from its friends, both at home and abroad, and numerous minor purchases were made. The birds, from their numbers and splendour, attracted general attention, and already ranked as one of the first collections in the kingdom ; whilst the minerals, shells, and insects, for that period, were far from contemptible.

In 1832 it was evident that the new building was not sufficiently extensive for the reception and display of the specimens accumulated, and the propriety of having one erected expressly for the purpose was suggested. This proposition was acted upon the following year, when, a convenient site being selected in Peter-street, the present hall of the Society was commenced. The plot of land secured was much larger than the actual building required, to enable future additions to be made ; a precaution highly necessary, from the great demand for warehouses and other buildings in that part of the town. In 1834 the Society received a considerable addition by the purchase of a collection of *Crustacea* belonging to the late Rev. L. Guilding ; and in April, 1836, the new hall of the Society being completed, the specimens were removed from their old situation to the places they now occupy.

The department in which this institution most excels is certainly that of Ornithology. The collection of British birds wants but few to make it complete, and the foreign one contains about eighteen hundred specimens ; amongst these are many rare and undescribed species. Hitherto the birds have only been arranged in general groups, but on the appointment of Mr. W. C. Williamson, in the autumn of 1835, to the office of curator, a new system of arrangement was commenced. The first step was the separation of the British from the foreign birds, which were placed in another room. The former were arranged according to the catalogue recently published by Jenyns, and grouped so as to simplify as much as possible the study of Ornithology. All the birds of one genus are brought together and placed upon one group of artificial branches, with the name of the genus fixed at the *root*, or point where the branch is fastened to the case. For the next genus a se-

parate branch is employed, totally unconnected with the other, so that the student may perceive, at a casual glance, what birds belong to the one genus and what to the other. To each bird is attached a label with its generic, specific, and provincial names, and also a number referring to a printed catalogue, by means of which their regular order of succession may be traced.

The arrangement of the collection of foreign birds is not yet completed. The classification of Cuvier, as illustrated by Griffith, is adopted in preference to any other. This classification is far from being a natural one; but it is questionable whether any other has yet been published to supersede it. That of Mr. Vigors will ultimately be much superior, but for want of more ample specific illustrations it cannot at present well be employed. The arrangement of all the objects of creation in *one straight line* will always be unnatural. It is highly desirable, however, that the arrangement should approach as near to the natural chain as possible, and at present there is certainly ample room for improvement; but the true positions of some few species, as the *Gypogerranus serpentarius* and *Mænura superba*, will long, we fear, be a gordian knot that naturalists will in vain attempt to unravel.

The collection of British Coleopterous, Hymenopterous, and Neuropterous insects, has been re-arranged, according to Stephens's *Synopsis*. These departments are very thinly supplied with specimens, a small portion only of the known species being yet obtained. We hope that such collectors as possess duplicate specimens will add their mite towards rendering the Manchester collection as complete as possible. The British shells are equally incomplete, but a small portion of the number existing in England having been as yet procured. The collection of foreign shells is far more extensive, and is at present under process of arrangement, according to the system of Lamarck. Here some difficulty exists in introducing the new genera of Sowerby and Broderip, the works of the former being published in so unconnected a form.

The greatest desideratum now consists in illustrative geological specimens. Those that the Society possess are arranged upon sloping shelves, as adopted in the museum at Scarborough. This plan has certainly some imperfections; but in districts where extensive natural sections cannot be met with, it materially assists in giving the student a distinct idea of the principles of stratification, and the relative antiquity of rocks.

The museum contains some beautiful specimens of Mammalia, especially of a few of the larger species. The space these occupy, and the great expense attendant upon the means of obtaining them, have hitherto prevented the Society from possessing so complete a collection as would be desirable; but, in beauty of appearance, such specimens as are already in the museum will yield to none.

It is easy to foresee the future prospects of this valuable institution. If it continues to increase with the same rapidity that has been so characteristic of its progress during the last fourteen years,

another such period will see it at the head of all British societies of the same nature. However enviable such a position must be, no feeling of jealousy towards sister institutions should lead it to strive for pre-eminence, except the generous principle of emulation. Whilst using every exertion to take a lead in the cause of science, the Society should offer a helping hand to those labouring in the same noble and glorious work—that of making man acquainted with the rich and varied objects that a beneficent Creator has placed around him, refining his mind and aiding his imagination by presenting him with pictures of the most transcendent beauty, laying before him evidences and undeniable proofs of design on every hand, and thus preparing him

“to look from Nature up to Nature’s God.”

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#### YORK PHILOSOPHICAL SOCIETY.

ABOUT the year 1822, the existence of fossil bones in the Cave of Kirkdale, first became known to the public. This circumstance having attracted a considerable share of attention, it was considered desirable that a collection of these organic remains should be permanently deposited in the county, and the want of a suitable place for their reception first suggested the idea of forming the Yorkshire Philosophical Society. In the first printed report of the Society, it is stated that its general object is the promotion of science in the district for which it has been instituted; and for this end it would enroll among its members, not only those who are themselves engaged in philosophical pursuits, but all by whom the value of such studies is duly appreciated. One of its aims is to facilitate communications of philosophical opinions and facts, by holding general meetings at which papers may be read and oral information received. Another object is to establish a scientific library, for which purpose a collection will be made of transactions of learned societies, Journals of Science, and works on Arts, Antiquities, and Natural History—especially the Mineralogy and Geology of Yorkshire—collections of specimens of Comparative Anatomy, Natural History, &c., will also be made, and the museum will be open to antiquities, or any other curiosities found in Yorkshire.

The property is vested in the subscribing members for the time being, as there are no shares or transferable possessions. Each member pays £5. on admission, and an annual subscription of £1.

In the first report, the names of 120 subscribers were included; and it contained an acknowledgement of a donation, from six gentlemen, of 2000 fossils, mostly illustrative of the Geology of the county, and 245 from Kirkdale Cave; some additional minerals were obtained by purchase. In the following year, the collection had increased so greatly, that the apartments became too small, and

a building suitable for the purpose was completed in 1829. It is in the Grecian style, with an elevated Doric front, and consists, on the basement, of dwelling apartments for the sub-curator, laboratory, workshop, and two rooms occupied with antiquities, the larger of the two being devoted to such as are architectural, of which a rich store was found in excavating for the formation of the new building. These excavations were prosecuted until the foundations and former extent of those monastic buildings were traced out, of which some splendid remains still exist above ground, but the original extent of which remained a secret, till brought to light by these explorations. An account of the whole, illustrated by numerous and beautiful plates, was drawn up under the auspices of the Society by one of its members (Rev. C. Wellbeloved), and published by the Society of Antiquaries. The ground floor consists of a vestibule, library, council-room, an elegant lecture-room, opening to the right into the mineralogical room, and to the left into the geological department; these two rooms communicate with each other at the other extremity by means of the zoological room, which is fitted up with a gallery, the whole suite being well lighted from above. The upper story consists of three rooms; one for duplicate and unarranged specimens; another for antiquities and rarities, and the bones of a Whale cut up on the Holderness shore a few years ago, and which is intended to be mounted for public inspection; the third is occupied by the specimens of Comparative Anatomy, &c., belonging to James Atkinson, Esq. The stone with which the building is fronted was presented by Sir J. V. B. Johnson, Bart.

On the 27th of Sept. 1830, the Society had the gratification and high honour of accommodating within its walls those distinguished scientific men who first planned the British Association; and of giving birth in their institution to that Society now so prosperous and widely extended; and which appears likely to exert so permanently beneficial an influence on British science.

Three years ago the zoological room was fitted up with glass cases and a gallery, at an expense of £500, the greater part of which was raised by subscription among the members. The collections in many departments have progressively and rapidly increased. The geological room, in particular, is one of the best arranged and most convenient for reference and instruction, in the kingdom, and reflects the greatest credit on the keeper of the museum, John Phillips, Esq., professor of geology in King's College, London, whose labours have been principally instrumental in bringing it to its present state of perfection. This room contains a good collection of specimens, from almost every British stratum having organic remains, arranged according to their geological position in the earth; also an interesting collection of fossils from the Paris basin, and one equally interesting of tertiary fossils from Sicily, lately presented by the Marquis of Northampton. Among the fossils is the jaw of a *Didelphis*, which possesses a high value from its being one of the only five specimens known to attest the existence of genuine Mammalia at so

remote a geological period, and for which the Society is indebted to the Rev. Christopher Sykes. It also includes a beautiful cast of the *Plesiosaurus*, presented by Chantry; and a cast of a fragment of an *Ichthyosaurus* recently presented by the Bristol Institution. Nor must the splendid fossil Irish Elk (mentioned in our last as having been dug up on the estate of G. L. Fox, Esq., near Waterford) be forgotten, as being the finest remains of this extinct but noble animal in England.

The mineralogical room contains a good illustrative series of minerals, arranged in cases along the centre of the room; and on its walls three large, ancient, and highly interesting tapestry maps of portions of England, added to the society's possessions by the Archbishop of York. The centre of the zoological room is occupied by cases containing rudimentary collections of British and foreign shells, *Crustacea*, and Corals. In the cases on one side of the wall are the British birds—by no means complete—the *Struthionide* and their skeletons, and a small case of British fishes; on the other side are the foreign birds. The gallery contains *Mammalia*, small foreign birds, and a valuable collection of the skeletons of birds, the property of, and prepared by, Mr. Allis. In another part of the gallery is a small collection of the skeletons of *Mammalia* and *Reptilia*.

In 1836 a very beautiful bust, by Chantry, of the Rev. W. Vernon Harcourt—the first president, and one of the most devoted friends of the Society—the gift of many of the members, was placed in the library. Several valuable donations were also received during the year, among which may be specified the noble fossil Elk already alluded to; one hundred and thirty-seven skins of Australian birds, presented by Capt. E. Markham, many of them of great beauty and rarity, and a great portion among the desiderata of the Society; a collection of skins from the Himalayas, by Dr. Wake; and a series of fossils in spirits, eighty in number, from the Mediterranean, from Mr. Allis.

The most important proceeding of the Society during the past year was the purchase from the crown of the remaining five acres of land forming the manor share, and lying between the Society's garden and the river, for the sum of £2,500; thus effectually securing itself from all annoyance from that quarter, and furnishing itself with means for enlarging its grounds whenever it may be requisite.

Several scientific communications have been received during the year, and a club, formed from the members, assembles every Monday evening during the winter; at this meeting each member in rotation produces a paper on some scientific subject, which then becomes the subject of discussion.

It must be confessed that the Society has hitherto obtained a fair share of public patronage, and that the subscriptions for its establishment were liberal; yet when we look at the object of the Society, and remember that it is a *Yorkshire* institution for the promotion



of science, we cannot but feel that it is entitled to a much larger share of support, by annual subscription, than it has hitherto received. It is open gratuitously to all strangers bearing a member's order, and to all residents accompanied by a member; but as complaints have been made as to the inconvenience of this system, admission may now be obtained by the payment of one shilling—a regulation made by way of trial. Those who can procure a member's order are still admitted without payment. About £65 was received during the year from the shilling tickets, and those who obtained admission by payment did not form a third of the strangers who visited the museum. The same arrangement is continued for the current year.

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### DONCASTER LYCEUM.

It is with much regret that we notice the undue attention paid by this Society to Politics, which we think should be wholly excluded from such institutions. Politics require no further encouragement than is most amply afforded by the newspapers and political magazines; but to excite a taste for science and literature, great and continued exertions are needed. Let us not be mistaken. We are most desirous that useful knowledge should be communicated to the people in every possible manner; and amongst these subjects politics ought to obtain a considerable share of attention. But when we see tradesmen enter a scientific and literary society solely with the view of reading a large number of newspapers for a small sum of money, to this perversion of the objects of the institution we most decidedly object. £20 per annum is spent in this ephemeral literature at the Lyceum, and some of the quarterly members\* are actually desirous of increasing the number of papers. As the Society wishes to expend some portion of its funds in newspapers, Dr. Ferguson Branson facetiously moved, at one of the meetings, that *one penny* per annum be dedicated to this purpose, a motion which receives our hearty approval. A petition against the abuse we are noticing has been drawn up, and very numerous and respectably signed, and we suspect, that if the error is persisted in, the Society will lose many of its more influential members, who, well aware of the real interests of such an institution, will naturally feel averse to giving it their countenance and support after so gross a perversion of its rational aim and objects.—Another subject we find it our duty to expose, is the delivery of a lecture on nutrition and digestion, by Mr. J. E. Morey, Surgeon, of Doncaster, the greater part of which was copied *verbatim* from one of Dr. Combe's

\* It will be remembered, that in our last report of the Lyceum, we observed that the subscription of the annual members is £1; that of the quarterly members, 10s.—EDS.

works. Now nothing could be more useful than to disseminate Dr. C.'s admirable views ; but if Mr. Morey was desirous of enlightening the inhabitants of Doncaster and the neighbourhood by reading them a chapter from that work, surely some kind of acknowledgment was due to the author. We are willing to testify to the skill of Mr. Morey as a surgeon ; but when he descends to such barefaced plagiarism, he may rest assured we shall not spare him. In fine, we wish the Lyceum every success, and whether or not our hints are acted upon, we hope they will be taken in the same kindly spirit in which they are written.

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#### CHESTER MECHANICS' INSTITUTION.

The Rev. Edward Stanley, Rector of Alderley, Cheshire, recently delivered a lecture, at this Institution, on the Uses of Studying Natural History, in the Royal Hotel Assembly-room. The Rev. Gentleman, in dilating on Natural History, pointed out in the most glowing colours, and with his accustomed energetic eloquence, the vast advantages to be derived in the increase of moral and religious feeling, as well as general knowledge, from the study of this subject. The whole of his discourse was listened to with the utmost attention, and at the close the Bishop of Chester rose and thanked Mr. Stanley for his admirable and very instructive lecture.—A lecture on Geography has been delivered to the Institution by Henry Raikes, Esq., Member of the Cambridge Philosophical Society.

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#### CRITICAL NOTICES OF NEW PUBLICATIONS.

*The Romance of Nature, or the Flower Seasons Illustrated.* By Louisa Anne Twamley. With twenty-eight Plates, engraved after original Drawings from Nature by the Author. Second Edition. London: Tilt. 1836.

*Beauties of the Country, or Descriptions of Rural Customs, Objects, Scenery, and the Seasons.* By Thomas Miller, Author of *A Day in the Woods*. London: Van Voorst. 1837.

WE are induced to group these two works together, not only because they have much in common (though ostensibly the one refers to specialities, and only occasionally touches on generalities, while the other refers to generalities, and rarely concerns itself with spe-

cialities), but because we consider the nearly simultaneous appearance of these and other works of a like character, evidence of what our American brethren term a "revival," or a return of "the heart of the nation" from the unsatisfying pursuits of war and the frivolities of fashionable life, to a taste for the pure and uncloying charms of nature and the country. Several of our poets, about the end of the last century and beginning of the present, endeavoured to give this more healthful direction to the mind; but amid the fierce contention of political strife, and the clangour and din of arms, their voice was either unheard or made but a feeble impression. Among the number of this glorious band it is enough to mention Cowper, Burns, Coleridge, and Wordsworth; the last named of whom we yet possess, and who is unquestionably the greatest poet of the present day in the sense in which *Nature* understands a poet, as one who ministereth continually in her temple, listening to the gentlest whisper of her voice, that, having caught, he may convey it, and interpret its deep meaning to the multitudes that stand without. To him is Miss Twamley's volume most appropriately dedicated—the offering of a young and beautiful daughter to a revered and venerable sire.

Fortunate it is for us that he and some others of the tuneful train perceived that

"The world is too much with us; late and soon,  
Getting and spending, we lay waste our powers;  
Little we see in nature that is ours:  
We have given our hearts away—a sordid boon!"

and earnestly do we hope that by the mild, but powerful, influence of song we may, ere too late, be enabled to

"Win back our way,  
Our angry spirits healed and harmonized  
By the benignant touch of love and beauty."

We deem it not one of the least peculiar of the features attendant upon the revival above spoken of, that the voices calling upon us to return have proceeded from the strongholds, the fastnesses, the very citadels of trade, commerce and manufactures; from Sheffield, from Leeds, and from Birmingham. Out of Sheffield came the voice of Ebenezer Elliot, like the vivid flash of the lightning bursting from the lurid thunder-cloud, shewing that men whose hands were hard with daily toil, were yet possessed of hearts melting with all the genial feelings, and radiant with all the brightest attributes of humanity. Leeds, too, can boast of one

"Whose soul can sicken at the tale  
Of sorrow springing from the sordid ore;  
Whose heart can feel for crippled childhood's wail,  
And scorn the vassal sceptre wielded o'er  
The infant labourer for a tyrant's store;  
Whose spirit wearies of the maniac roar,  
The mammon-worshipper's idolatry,"—

and whose indignant denouncements of the evils attendant upon entering into the service of

“Avarice, that demon bold,  
Who ranges earth with never-dying force,”

Jack little, if anything, of the nerve, the pathos, or the soul-arousing power, of the mighty “Corn Law Rhymers.” Yet listen to the tones in which, turning from such heart-rending scenes, he pours forth an invitation which no one should resist :—

“Come thou to quiet fields, and meditate with me :  
Look, as thou wanderest on thy gentle way,  
Into thine own heart’s temple, and within  
Its holiest veil some solitary ray  
Of beauty, beaming through the mists of sin,  
Shall gladden thy new being, as the din  
Of courts and camps, in lawless riot’s hour,  
Hath never gladdened it ; and thou shalt win  
A nobler pleasure for thyself, than power  
And wealth can ever find in passion’s harlot-bower.

Thou shalt converse with beauty-beaming spring,  
The glorious infancy of nature’s life ;  
And thou shalt hear glad insects murmuring  
O’er the green earth, with all her blessings rife ;  
No voice discordant, and no greater strife  
Than amorous birds for some fair mate contending ;  
Or bleating lambs, unprescient of the knife,  
With their white dams among the mountains wending ;  
All that is good on earth with thine own spirit blending.

So shall we gain health’s rich inheritance,  
And ruddy vigour in our bodies grow ;  
Not the flushed fever of intemperance,  
The bloated epicure’s unwholesome glow,  
But the calm current in our veins shall flow  
Pure as the fountain which its blood supplies ;  
Slumber shall hover o’er our couches low,  
Blessing frail nature with fresh energies,  
While troublous dreams shall flee to sensual sleeper’s eyes.

Th’ ethereal intellect—that brighter part  
Of dark humanity—wax brighter still ;  
Nor indolence, nor melancholy swart,  
Fetter the freedom of the wearied will ;  
Th’ imprison’d God within us holier thrill  
Through every sense that binds us yet to clay ;  
And inspiration from her sacred hill  
Descend, to light us on our placid way  
With holy prayers by night, and poesy by day.”\*

In Leeds also, as well as in Birmingham, the female muse is raising her softer, but not less persuasive, voice in behalf of the

\* “The Age of Gold,” in *Cyril, and other Poems*, by George Wilson, Leeds, 1834.

same great and good cause : and to the authoress of *The Moral of Flowers*, as likewise to her whose pen and pencil have produced *The Romance of Nature*, do we return our cordial thanks for what they have done and are doing.

“ Blessings be with them, and eternal praise,  
Who gave us nobler loves and nobler cares.”

After this preface we must confine ourselves to the works immediately before us, and, as in duty bound, first pay our respects to the lady.

Of all romances commend us to *The Romance of Nature* ! 'Tis like the landscape, “ ever charming, ever new ;” and what but a romance on the grandest scale is carried on every year on the stage of the earth, the agency being all of a supernatural kind ? And who but such observers as Miss Twamley could detect the secret character of the performers under their many-coloured garb and occasional disguises, and explain them as they pass to the other less attentive spectators ? She is worthy of the appointment of priestess in the court of Flora, or to be made mistress of the ceremonies on levee and grand gala days ; for she not only instructs each one that is successively presented to the goddess what to say, but takes care that they are properly attired and dressed for the happy occasion. She has arrayed each in the colours which best become the delicate beauties, and has been particularly careful that there should be nothing artificial about them, but that each should appear strictly natural. Hear what she says on this point :—

“ Of the plates (on which authors usually compliment the artists), I can say nothing, but that they have been carefully engraved after my own drawings, which drawings were invariably made from Nature. I have never been guilty of curving a stem on my paper which I found growing straight in the field, or of magnifying a flower for the sake of the gay effect. My models always appear to me too perfect in their beauty for me to dream of doing aught but attempt to copy, faithfully as I can, their various forms and colours : invention here must be positive error, and I anxiously strive to avoid *that* fault, however I may sin against the laws of picturesque effect or elegant arrangement.”

We hope the result, as seen in the beautiful plates which adorn this volume, will have the proper effect on our flower painters, and prevent them attempting to *improve* upon Nature, or being guilty of such “ wasteful and ridiculous excess” as that of painting “ the lily” otherwise than it really appears. Nor is she less truly natural when she exchanges the pencil for the pen. No one can read her introductory lines, entitled “ Flowers,” without feeling that they contain

“ All her impassion'd heart's fond communings.”

“ Beautiful, even in its error, seems  
The pagan offering of flowers as gifts  
To the Almighty Power : for what so fair,

So pure, so holy, as their fragile forms ?  
 Earth's loveliest offspring, whom the mighty sun  
 Looks on with smiles, and whom the careful sky  
 Nourishes with soft rain, and whom the dew  
 Delights to deck with her enclustered gems,  
 Which each, reflecting the soft tint it lights,  
 Gains, while it gives, new beauty.

O ! they 're fair !

Most wonderful and lovely are they all !  
 From our own daisy, 'crimson-tipped,' that greets  
 Our English childhood with its lowly look,  
 To the proud giants of the western world  
 And gorgeous denizens of either Ind,  
 Towering in nature's majesty and might,  
 And lifting up their radiant heads to hail  
 The sun, their monarch, as he burns above.  
 Who does not love them ? Reader, if *thine* heart  
 Be one unblessed by such affection, turn  
 Far from these lays thy cold and careless eye,  
 For less than dull to thee the page will seem.  
 And if e'en Nature glads thee not, then Art,  
 With Nature for her model, will but tire.  
 But *ye*, creation's readers, O ! be mine :  
 If ye do love that glorious book whose leaves,  
 Interminably spread before our eyes,  
 Challenge our onward progress in its lore—  
 Small though our utmost grasp of it may be—  
 Then will ye listen to the simple lyre  
 That now, with changeful tone, or grave or gay,  
 Wakes its wild music to a gentle theme,  
 Gentle and sweet—'tis the Romance of Flowers !"—pp. 5-6.

And sweetly does she sing, in various keys and moods, of the different flowers which form the subject of her verse, whether they be the gems which form the sparkling coronet of spring, the garland of summer, or the robe of autumn. In addition to her own charming lays and fitful fancies, she provides her guests with a rich banquet of the choicest fruits collected in the garden of the old English poets, from Chaucer to Herrick, who was truly more divine than human, and a selection from whose works she intends to edit.

In admiration of our old English poets, Miss Twamley and Thomas Miller harmonize delightfully. Another point in which they agree is in their intense regard for the scenes and charms of their native land.

"Beautiful," says Miss Twamley, "in their rich, calm, and sun-lit summer pride, are the rural scenes of our own dear England : beautiful, even, is the memory of spots we have transiently beheld in such a season ; for though we may dwell in them but an hour, we remember them for a life : and often do they rise before the mind's eye like pictures, gladdening many a lonely hour with their silent and dreamy eloquence ; telling of the thousand 'changes of time and tide' which we have seen and felt since we gazed on the bright realities ; and proving how precious is that spirit's wealth we gain from communion, however brief, with the beauty, purity, and holiness of Nature."—p. 130.

## A modern Greek, gazing on the scene

"Where burning Sappho loved and sung,"

could not feel more vivid delight than does our enthusiastic basket-maker when speaking of the scenes hallowed by the muse of Chaucer, Spenser, Shakspeare, and Milton, which, in his eyes at least, they have raised

"Above all Greek, above all Roman fame."

"Why should we envy sunny Italy, or the classic shores of Greece, while our own green hills lift up their wood-crowned foreheads to heaven, and our velvet valleys are musical with brooks? Are we not rich in golden poetry? Old Chaucer has shed a glory over our plains, and Spenser has hallowed our forests; Shakspeare, the immortal, has "warbled his wood-notes wild," and let loose an eternal music through our land, whose melody can never die, and the god-like Milton hath struck a harp-string whose vibration shall never cease while an echo haunts our lovely hills. Let us look with an eye of love upon our country: the greenery of sweet groves invites us, the violet and primrose call us forth with a still voice of music which our ancestors heard—the daisy waves its white head as if beckoning us to the fragrant fields. Up, and away, then, to the woodlands, to worship the month of love and flowers. Chaucer confessed, nearly five hundred years since, that nothing but the daisied fields of spring could allure him from his books. How sweetly does he describe his feelings at this season of the year!"\*

Burns and Scott have invested with a similar interest the scenes of the northern part of our island, and spread over its heaths and fields a spirit of undying power. To borrow the words of Campbell's splendid *Ode to the Memory of Burns*,

"On Bannock-burn what thoughts arouse  
The swain whom Burns's song inspires!  
Beat not his Caledonian veins,  
As o'er the heroic turf he ploughs,  
With all the spirit of his sires,  
And all their scorn of death and chains?"

The writer of the article "Beauty" in the *Penny Cyclopædia* seems to think that no poet possesses such a power. "Beauty," he says, "never arises from such a source as this. No man would think a plain green field or an ordinary stream more beautiful than any other such field or stream, simply because King John had signed Magna Charta in the one, or Julius Cæsar raised the standard of rebellion on the banks of the other." This averment is, we think, abundantly contradicted by the testimony of both the wise and the simple. A countryman who was conducting Washington Irving over Burns' farm in Ayrshire said "He thought the country had grown more beautiful since Burns had written."†

\* "May," in Miller's *Beauties of the Country*.—p. 138.

† See *Abbotsford and Newstead Abbey*.

Fitzgreene Halleck, another American, in his noble poem *To a rose brought from Kirk-Alloway*, speaking of the effect of walking over the land of Burns, says—

“ All ask the cottage of his birth,  
Gaze on the scenes he loved and sung,  
And gather feelings not of earth  
His fields and streams among.”

And, lastly, we have the testimony, perhaps the best of all, of Wordsworth, in his sonnet entitled “ Mossiel :”—

“ ‘ There,’ said a stripling, pointing with meet pride  
Towards a low roof with green trees half concealed,  
‘ Is Mossiel farm, and that ’s the very field  
Where Burns ploughed up the daisy.’ Far and wide  
A plain below stretched sea-ward, while, descried  
Above sea-clouds, the peaks of Arran rose ;  
And by that simple notice the repose  
Of earth, sky, sea, and air, was vivified.  
Beneath the random *bield* of clod or stone  
Myriads of daisies have shone forth in flower,  
Near the lark’s nest, and in their natural hour  
Have passed away, less happy than the one  
That by the unwilling ploughshare died to prove  
The tender charm of poetry and love.”

We have indulged in this digression because we deem this power claimed for our poets at least as valuable as any of those by which Pope undertook to prove that a poet was,

“ Although no soldier, useful to the state.”

Miss Twamley has woven into her graceful lays many pleasing apologues and instructive fables, such as that of “ The Flower and the Fairy,” at page 113 ; reminding us of some of the delightful conceptions of the German writers, of which a good example may be found in that translated from the *Parabeln* of Krummacher which appeared in Blackwood’s *Magazine* several years ago :—

“ The angel of the flowers one day  
Beneath a rose tree sleeping lay ;  
That spirit to whose charge is given  
To bathe young buds in dews from heaven.  
Awaking from his light repose,  
The angel whispered to the rose :—

‘ O ! fondest object of my care,  
Still fairest found where all are fair,  
For the sweet shade thou ’st given to me  
Ask what thou wilt, ’tis granted thee.’  
‘ Then,’ said the rose, with deepened glow,  
‘ On me another grace bestow.  
The spirit paused, in silent thought  
What grace was there that flower had not :



'Twas but a moment—o'er the rose  
 A *veil of moss* the angel throws.  
 And, robed in nature's simplest weed,  
 Could there a flower that rose exceed?"

The writings of Herder abound with similar fictions, one of which we have "done into English" prose; and if Miss Twamley will confer upon us so much honour as to "do it into verse" for her next edition, and head it "The Romaunt of the Rose," we shall feel highly flattered.

### THE LILY AND THE ROSE.

Tell me, ye graceful daughters of the coarse black earth, who gave you your beauteous shapes? since truly ye were formed by delicate fingers. What little spirits spring from your cups? and what pleasure pervades you when goddesses rest themselves upon your leaves? Tell me, peaceful flowers, how do they divide themselves in their friendly work, and nod to each other when they spin your fine web of so many folds—so multifariously adorned and embroidered? But ye are silent, sweet children, and enjoy your existence. Well, then, the instructive fable shall tell me what your lips withhold from me.

Once, when the earth stood a naked rock, behold, there stepped forth a friendly troop of nymphs upon the virgin earth, and happy genii were ready to cover with flowers the naked rock. Multifariously they divided themselves in their work. In beauty, under the snow and cold short grass, began the modest Humility, and wove many a concealed little one: Hope followed her, and filled with cooling odour the cup of the refreshing Hyacinth. Then came, as it pleased each, a prouder, showy choir of variegated beauties—the Tulip raised its head; the Narcissus looked around with languishing eyes. Many other goddesses and nymphs employed themselves in the varied work, and adorned the earth, exulting over their beauteous forms.

And lo! as a great part of their work had faded away with their fame and their joys, Venus said to her Graces, also—"Why linger ye here, sisters of gracefulness? Up, and weave with your charms a mortal visible flower." They descended to the earth, and Aglaia, the Grace of Innocence, created the Lily; Thalia and Euphrosine wove, with sisterly hand, the flower of Joy and Love—the Virgin Rose!

Many flowers of the field and garden envy each other; the Lily and the rose envy none, and are envied by all. Like sisters, bloom they together upon the field of Flora, and adorn each other, since the sisterly Graces wove them together.

Also, upon your cheeks, O! maidens, may lilies and roses bloom; and may your graces, Innocence, Joy, and Love, ever dwell upon them united and inseparable!

The public has shewn its appreciation of the merits and beauties of Miss Twamley's book by bringing it so quickly to a second edition. We anticipate that every revolving season for many years to come will call for a new, and we are sure Miss Twamley will spare no pains to render it a more beautiful, one. It were superegration to say to *The Romance of Nature*, since it could not be otherwise if we wished it, *Esto perpetua*.

We now turn, as the season of the year invites, to *The Beauties of the Country*. Mr. Miller entitled his former volume *A Day in the Woods*; he might have termed this "A Year in the Woods,"

or at least in the country ; for he discourses of its charms throughout each month of the year with so much eloquence and fervour, that "cold is his heart" who can remain "in populous city pent" when such allurements are presented to his mind's eye. The earnestness of his tone reminds us of *The Passionate Shepherd to his Love* :—

"Come, live with me and be my love,  
And we will all the pleasures prove  
That grove or valley, hill or field,  
Or wood and steepy mountain yield.  
Where we will sit on rising rocks,  
And see the shepherds feed their flocks  
By shallow rivers, to whose falls  
Melodious birds sing madrigals."

We have already presented our readers with one specimen of his style, and now, anxious to give an idea of his descriptive powers, are absolutely at a loss what to choose. Were we to select May, few of our readers could resist the disposition to exclaim, with Herrick, changing the name in his line for any other that they have a preference or passion for—"Come, my Corinna, come, let's go a-Maying!" if not to dance around the neglected May-pole, at least to 'partake in the rejoicing between heaven and earth.' We give but a part of it :—

"The woods have a very beautiful appearance this month, for the trees have only put on a part of their foliage ; and where, in a few more weeks, all will be clothed in a leafy darkness, now reigns a green soft light—an emerald sunshine. Each tree, also, shews its fine tracery ; the wiry twigs, the feathery branches covered with ivy and enamelled moss of various hues, and the stronger boles throwing up their iron arms in every direction. There, too, are the silver brooks "kissing the feet" of tall stems with murmurs, and making sweet melody as they glide along, reflecting the blue sky and the young leaves which glitter around many a new-made nest. The wild-rose uplifts its amber cup on the thick hedges, as if wooing the dews to alight ; and the trailing wood-bine blushes along the wood-side, and loads the breeze with sweet odours ; while the wild-cherry, sheeted with blossoms, rears up like a pillar of snow in the forest. The tulip-tree is in full leaf, the flowers of the horse-chestnut are appearing, and the lilac sends forth a pleasant smell : the leaves of the mulberry have put out ; the tall fir, the majestic oak, and the lovely beech, are also in flower—so is the elm, the mountain-ash, the alder, the horse-chestnut, laburnum, guelder-rose, and several others mentioned last month. Nearly all the trees have, before the end of the month, put on their summer dress ; every day the woods look darker, most of the flowers are in full bloom, and the birds also in full song. A thousand winged insects now hum in the air—the bee is on the wing—the butterflies are out in the sunshine—and the fields are filled with music."—p. 136.

Many are the passages of equal or of greater beauty with which this volume abounds, which, however, is not, nor professes to be, altogether original ; on the contrary, it contains a variety of extracts from similar works, thus forming a collection of "all other men's sweets," as stated by the author ;

"Gentle reader, we have catered for thee through many a goodly volume—have turned over wearily many a page, extracting, like the bee, the honey from them."—p. 158.

This is to us, even, who possess no small number of volumes on this subject, a great recommendation, since we find here brought together many of our favourite passages. As our limits forbid farther extended quotation from this work, we give a few of the original and beautiful thoughts which are scattered through its pages.—Speaking of the repose and beauty of an English landscape at sunset, he says :—

"Live not all these images in the heart, chasing away even care while we contemplate them, and throwing a soothing tranquillity over the soul—a rest which we remember, a poetry which owns no words, a delight which can never be forgotten?"—p. 106.

Speaking of the early flowering of the Snowdrop :—

"The north wind whistles, and the hoar-frost clothes the verdure-despoiled trees ; an uniform white carpet covers the earth, the birds withhold their tuneful song, and the sealed waters cease to murmur as they roll along. The rays of the sun, enfeebled by the density of our atmosphere, shed a gloomy light over the fields, and the heart of man is sad while all Nature reposes in torpid tranquillity : still this delicate flower ventures forth alone, *starting like an unexpected thought from the mind*. Meek emblem of consolation ! herald of spring, sent forth from the bowers of Flora, like the lovely dove from the ark, to visit the earth for a season, then return to tell whether the young buds burst forth, or the stern storm still careers over the flowerless valleys."—p. 35.

The man who thinks and writes in this manner is (as our readers may have learned from what we before said, or from other sources) a basket-maker ; yet he has produced a work which, whether we regard the style, sentiments, and acquaintance with the literature of our country by which it is characterized, or feel the patriotic spirit and commendable desire to turn the attention of his countrymen to the pleasures which are free and open to all, which it breathes, would reflect the highest credit upon any author, of any rank, however distinguished that might be. It is, indeed, delightful to find sentiments such as his, existing in the bosoms of men to whom fortune has been a niggardly patron, as regards the goods of life ; and we cannot but hope that a generous public will extend its encouragement to him in plenteous measure : this even the poorest may do, for those who cannot afford to purchase his book may at least buy his baskets. The ladies of Great Britain should resolve that all "flower baskets" used by them should be manufactured by him, none to be deemed genuine which do not bear the name of "Thomas Miller, Elliott's Row, Southwark." Let us remember the fate of Burns, and avoid a similar degree of injustice to any other son of genius.

"O! had the tithe of monumental offering,  
 Which wealth and rank have on his memory rolled,  
 Been poured upon the living and the suffering,  
 Ere yet the twelfth hour of his fate had tolled,  
 How changed had been his tale, so bright, so brief!"

It would be unpardonable to omit noticing the wood-cuts which form the vignette, head and tail pieces, to the number of twenty-six, from designs by Mr. E. Lambert; they greatly adorn the volume by their appropriateness to the occurrences in each month. We could not look upon that of April, the peaceful river, and the contemplative anglers enjoying their recreation, without experiencing a strong movement of the spirit, and feeling an inclination to look out our rod and tackle, to set off on a piscatory excursion, with Izaak Walton in one pocket and Yarrell's *Fishes* in the other. We hope to do this ere long.

*National Education ; its Present State and Prospects.* By Frederic Hill. 2 vols. fcap. 8vo. London: Charles Knight. 1836.

THE object of the present work is to give a clear and succinct account of the state and prospects of education in the different countries, without professing to *teach* the science to the uninitiated, or even entering deeply into the discussion of the most expedient methods of instruction. That it is necessary to obtain a tolerably correct estimate of the statistics of national education, and of the manner of imparting it, is too obvious to require enforcing. Unless we are aware of the numbers of educated persons in the various countries and districts of countries, as well as the relative effects of such instruction, we must be working in the dark, and our labours will be rendered comparatively useless. That education, as a national object, is positively beneficial to the morals and general habits of industry of the working classes, is placed beyond doubt by the results of the educational reports so frequently had recourse to in Mr. Hill's volumes. *Cæteris paribus*, a nation will be moral and steady in proportion to the amount of instruction imparted, provided that instruction goes beyond the mere teaching of reading and writing, implements which, undirected, are as likely to be abused as properly employed. Our author details, in his *National Education*, the modes of instruction adopted by some of our principal schools, applauds where approbation is due, and freely censures when the occasion requires. He has, moreover, instituted a minute investigation into the practical use of infant schools; the evidence under this head, being obtained from those who, by their situations, are fully capable of giving a true estimate of the case, may, it is presumed, be relied upon. The conclusion almost unanimously arrived at is, that such establishments are always more or less beneficial, and that even where they are under injudicious management some advantage always accrues from them. It has further been observed that those children who have attended infant schools, and have after-

wards been sent to national schools, make better servants, and are generally more sought after as apprentices, than those who have not enjoyed similar privileges. Add to this the extremely small number of instances in which individuals educated at good national schools have afterwards been convicted of any moral offence, or become burdensome to society in any way, and no one who really has the interests of his fellow creatures at heart can continue to be opposed to instructing the people. On the contrary, they will take every opportunity of adding to their knowledge, and thereby increasing their comfort and happiness. The building of churches and the preaching of sermons may be all very well; but until the people are enlightened, instructed in the physical, intellectual, and moral structure of man, by practical and intelligible illustrations, the purely doctrinal tenets of the divine, and the brightest eloquence that ever adorned the pulpit, will have no more impression on the moral sentiments of the illiterate peasant than a passing shadow; drunkenness and every other vice will remain as before, and the zealous but misguided priest will marvel at the obduracy of his "beloved brethren." To strike at the root of the evil the benefits of education must be extended to the lowest classes, and the alteration effected in the community will be certain and striking.

In the second volume we are presented with an account of the state of education in Prussia, and most gratifying that report must be to the educationist. Here the government provides for the instruction of a very considerable proportion of the labouring classes. Children of a certain age are obliged to go to school, and the schools appear to be conducted upon an extremely judicious plan. Compare the miserable and imperfect system adopted in our own establishments with a Prussian normal school, wherein are taught Religion, Reading, German, Arithmetic, Geometry, Drawing, Writing, Singing, Mathematics, Geography, Natural History, History. Only contrast this with our boasted establishments of Eton and Westminster, our universities of Oxford, Cambridge, &c.! The introduction of Natural History and Music to the pupils we cannot but perceive with the highest pleasure. The contemplation of the works of Nature, and the exercise of the "divine art of Music" must be alike amusing and instructive to the young and pliant mind, and form a highly desirable recreation even to those who are unable to follow them in detail. Many of the Prussian schools have excellent organs, piano fortes, violins, &c., and each pupil receives instructions on these instruments and in Singing. When shall we arrive at this state in England?

The conclusion at which we arrive, after a perusal of Mr. Hill's book is, that education is certainly advancing everywhere, and that its advantages are obvious and undeniable. That very much yet remains to be done, however, even where it is most flourishing, as in Prussia and some parts of America, is certain, and no fear need exist as to the possibility of advancing too rapidly. We are also of opinion that normal schools ought to be more extensively establish-

ed, and that cheap literature should be encouraged and increased by every possible means. It is then, and then only, that we can expect our labourers, as a body, to be steady, sober, well-informed, and industrious—then alone that we can hope for a material reduction of crime in every shape, and the prevalence, in every class, of that comfort and happiness which ought to be the lot of all. We might say much more on this engrossing topic, but we fear we have already been guilty of a breach of courtesy towards our author, and therefore speedily proceed to make amends for our negligence.

Upon the whole, it must be conceded that Mr. Hill, with all his enthusiasm on the subject, has conducted the discussion, in every department, with that impartiality and desire for truth which ought to be the prevailing feature of a work on so important a topic. He displays throughout considerable ability, and his observations on methods of instruction, both general and particular, are, for the most part, sound and excellent. The style is modest, and well adapted to the subject. We must, however, “pick a crow” with Mr. Hill on one important point. Let us whisper in his ear—*Why have you refused the assistance of Phrenology?* This science is only once mentioned in the whole work, and that merely incidentally. Surely Mr. Hill has not investigated the claims of Phrenology to the rank of a science; had he done so, we feel convinced that he would readily admit its value as an accessory to the attainments of the teacher. To adduce a single instance; would not a recourse to this science have saved an infinity of trouble and expense to the governors of the normal schools, by determining, at a single glance, the fitness or otherwise of a young man to become a teacher of youth? We hold that Phrenology is the true science of the mind; whether or not it is so should have been determined by our author before writing his work, and, if we are not strangely mistaken, his impartial investigation would have convinced him of the truth of our position. The only grave desideratum which now exists in his work would then have been supplied. Mr. Hill deserves, however, the united thanks of every well-wisher of his species, and we have much pleasure in recommending his *National Education* to the attention of all who believe that to educate the people is to increase their welfare and that of the country at large.

*British Oology; being Illustrations of the Eggs of British Birds, with figures of [those of] each species, as far as practicable, drawn and coloured from Nature; accompanied by descriptions of the Materials and Situation of their Nests, Number of Eggs, &c.* By William C. Hewitson. Newcastle-on-Tyne: Currie and Bowman; and Edwards, London. Vol. II., royal 8vo.

IT is with pleasure that we resume our critical analysis of Mr. Hewitson's beautiful work on British eggs. The volume before us contains forty-four plates, illustrating those of fifty-four species, and representing eighty-eight examples. Many of these are very

rare and difficult to obtain, and a large proportion of them extremely variable ; so that it requires no inconsiderable amount of experience and judgment in order to be enabled to figure typical and characteristic specimens. We have been much instructed by a variety of interesting anecdotes interspersed through the letter-press ; for all which original observation the ornithologist is greatly indebted to the industry and perseverance of the zealous author. A few of these we shall occasionally introduce in the course of this review, which will enable the reader to estimate Mr. Hewitson's talents as a field naturalist.

Plate I. (XCVIII. in the series of publication) contains two figures of the egg of the Common Curlew, exquisitely represented, and characteristic in the extreme ; yet, without wishing to be deemed at all hypercritical, we could wish that one of them had been coloured a trifle deeper, for they are often much darker than fig. 1. We are induced to say this principally because Mr. H. observes that " the two figures represent two opposite varieties, those intermediate being much more frequent." We hope every naturalist has often participated in the devout and heart-felt sentiment of gratitude and adoration to the supreme Governor of the Universe with which our author opens his brief notice of the habits of this bird. " I have never traversed the lone wild heath, deserted, except by the feathered race, and at a moment at which I have felt the solitary dreariness of the scene, that the wild cry of the Curlew, so much in accordance with all around me, has not come like the voice of a companion to my ear, and produced a silent feeling of gratitude to that Being who has thus adorned with life and beauty the most sterile and least interesting of his works ; and I have thought how great would be the void in the creation were we deprived of this single branch of his glorious works." We are more familiar with the Curlew's cry upon the sea-shore, and there also does it harmonize with all around, and tranquillize and elevate the mind, and lead it to hold communion with its Divine Creator ; there has it often induced in us the same mood of silent and most delightful contemplation, and called forth the same spontaneous feeling of natural religion, which confers the very purest and most exalted happiness of which our nature is susceptible. But let us return to the wild haunts of our friend the Curlew. Mr. Hewitson tells us of what our own experience of the habits of this species would certainly never have led us to anticipate. " Whilst in Norway," he says, " we were much amused at what appeared to us to be quite a new and unnoticed habit of the *Grallatores*, or Waders. One day, eagerly pursuing a bird of this order, and having searched in vain a marsh towards which it had flown, we were about to relinquish the pursuit when, much to our amazement, we discovered it seated high above our head, on the top of a tree ; so contrary was this to any of the habits of this class of birds with which we were then acquainted, that we concluded that it must be a species unknown to us. We afterwards found it, however, to be a practice

by no means uncommon with the Redshank and Greenshank; and what surprised us more than all was, to see the Longlegged Curlew alight, as it frequently did, on the tip-top of the Pine forests, and to hear it, as it passed from tree to tree, utter its loud whistle." It is well known that the Herons, Storks, and Ibises, perch a good deal; also, it may be added, the Common Gallinule.

Two figures of the egg of the Whimbrel Curlew succeed, which are delicately represented. These are much rarer in collections than the last, and are of a greener tint, more boldly spotted. Mr. Hewitson is "unaware of any building place in this country besides the Shetland Isles, upon two of which (Yell and Hascovea) only they are to be met with, in very small and rapidly decreasing numbers, their eggs being there considered a delicacy." The party who visited Sutherland in the summer of 1834 observed this species upon the margin of Loch Shin, in that county, but no eggs or young were obtained. "Its note," says Mr. Hewitson, "when disturbed by your approaching its nest, is, like that of the other, in loud, clear, and closely repeated ejaculations." In all this tribe of birds the female exceeds her partner in size; a fact particularly noticeable in the larger Snipes, the Godwits, and Curlews: this has been popularly noticed, whence a prevalent error has arisen that the Whimbrel is the *Jack* Curlew, as it is not unfrequently designated, and that the *Scolopax gallinula* is the male or *Jack* Snipe: the latter is an extremely common notion in most parts of the country.

Two faultlessly represented eggs of the Redshank Sandpiper; No. 2 exhibiting rather the more ordinary aspect. Plenty of these may be obtained every season in the London markets, as may also, now and then, a few of those of the Common Curlew.

Next follow two capital figures of the Common Sandpiper's egg. This pretty little bird, so frequent in many of the northern counties, is of comparatively rare occurrence in the south of England, scarcely commoner in those bordering the metropolis, than its rare and estimated congener, the Green Sandpiper, which is often met with in the districts margining the Thames. The little Temminck's Sandpiper is closely allied to it, and resembles it in habit, but is still more rare. The beautiful *T. glareola* is, in the same parts, hardly more frequent than the last-mentioned species, if, indeed, so common. It is no easy matter to procure the eggs of certain members of this and some allied genera.

A fine example of the Wood Snipe's (or *Woodcock's*) egg, considerably differing from those of the Common Snipe, which are well known. We have several times met with the young of this species, and very near London, but never the egg. An individual, about one-third grown, came into our possession on the 20th of last April, notwithstanding the excessive backwardness of the season: it was caught in Surrey, by a cat; and a day or two afterwards we saw many of the adults exposed for sale in Leadenhall market. We are acquainted with at least one situation within a few miles of the metropolis, where this species annually breeds; and what leads us



to suppose that the increased taste for Natural History is the principal reason why we so often now hear of the nest being met with, is the fact that we believe no person in the neighbourhood alluded to is aware that any Wood Snipes stay with them through the summer. Even if they were so, indeed, it is by no means likely that any of them would make it known.

A couple of Snipe's eggs, admirably represented; No. 1 exhibiting the usual appearance. "The Snipe," says Mr. Hewitson, "is most commonly to be met with in low, marshy, and boggy grounds, and in such situations a few of them breed in most parts of the country. It is extremely difficult, however, in describing the usual breeding place of any bird, to limit it to any particular situation. In confirmation of this, I met with several nests of the Snipe, during the present summer, affording so great a deviation from their usual position that I was strongly inclined to doubt their identity, till I had proved it. They were upon Foula, the most westerly of the Shetland Islands, against the dry heathy side of a steep hill, and at an elevation of not less than from 500 to 1000 feet above the marshy plain."

Two examples of that of the Common Dunlin, sufficiently characteristic and exact; but we could wish that one of them had been figured rather darker.

The next plate contains eggs of three species; viz.—the Corn Crake, Speckled Sora, and Rail; one example of each. There is a great family resemblance throughout the eggs of all the species of this family, and they are unlike those of any other. The Corn Crake's egg is, perhaps, as good an average as could be chosen; those of the other species are somewhat smaller, and alike in size: that of the Rail is very like many examples of the Corn Crake's—dull-reddish white, with small specks of reddish brown and pale ash colour. The Speckled Sora's egg has a deeper ground tint, and is more boldly spotted with darker brown. Mr. Hewitson observed the Corn Crake "sitting upon the stone walls, in Shetland, on which it had a singular appearance."

Two eggs of the Common Gallinule succeed, differing remarkably in size, but not nearly so much in tint and markings as some we have. However, they are sufficiently characteristic, which is all that is necessary. They vary from a dull clay tint to reddish white, and the spots in size and relative abundance. Not unfrequently they have a longitudinal tendency. We have seen a variety with the ground colour pure white.

A Coot's egg, which is less variable in tint than the preceding, though, like it, subject to much difference in size, as Mr. Hewitson observes. We are aware of no author who has described the singular production on the forehead of the newly-hatched Coot, beautifully intimating the true nature of the frontal shield, which is simply a modification of the feather. An approach to this structure is noticeable on the forehead of the Rail, on which the shafts of the feathers terminate in a horny point. In the chick of the

Coot, the forehead and beyond it are covered with a sort of feathers—for so we must term them—each of which is a small flattened oblong lobe, separate from, and overlapping, those behind it. In like manner, the elegant tips to certain of the wing and sometimes tail-feathers which distinguish the Wax-wings, are not, as generally described, prolongations of the shaft, or even appendages, in strictness of language; but they are modifications of the whole substance of the feather, not increasing its total length: in one specimen in our possession, which has these red tips unusually large, there is a single secondary in one wing that wants this structure, although those on each side of it are thus distinguished; and the barb of this one extends beyond the others, reaching to the termination of their red tips. It may be added, that the rictorial bristles of birds are also true feathers, and are annually moulted like the rest of the plumage. Of this any person will be at once convinced who examines their condition in a young nestling.

We have next two excellent representations of the Oystercatcher's egg, accompanied by some curious remarks on its nidification and habits in the breeding season. "It is very particular," says Mr. Hewitson, "in its selection of a situation for its eggs, always choosing a piece of gravel or stony ground, if to be met with, especially if mixed with bits of broken shells, to which it shews a curious partiality, carefully collecting them together, and arranging them in a slight hole in the ground: when these are not to be found, it selects small flat pieces of stone. There is something very singular in the habits of this bird, which has always puzzled me greatly: simple as are the hard materials composing its nest, it is as particular in the arrangement of them as many of our smaller birds, in the softer compositions of their neat and beautiful abodes. In this it seems to have much difficulty in pleasing itself, and makes numerous nests ere it fixes upon one; this I have always noticed, and in some instances have seen as many as a dozen, all apparently as well finished as the one containing the eggs. Nothing can exceed the very extraordinary and anxious solicitude evinced by this bird on your approaching the nest; it flies round and round you, uttering its loud and piercing cry, and becoming more and more noisy as you near the nest. It lays three eggs, varying as figured in the plate; the spotted variety occurring more frequently than the other," which is darker and streaked. "The young birds run soon after they leave the shell, and are very active. On being pursued, they hide their little heads in the first hole, as a beaten fighting cock will do, considering themselves safe when you are no longer visible; the down with which they are covered is beautifully mottled." Having quoted so much, we may add that their first feathers, as in many other species, resemble those of the adults in summer dress, excepting in being very much looser and more downy in texture. There is better philosophy than people seem generally to suppose in this concealment of their faces, for, on the stones, the bright quick eyes of the little chicks are the most apt to excite observation. Wilson,

in one instance, observed the Kildar Plover, (*Charadrius vociferus*), of North America, to form a nest similar to that here described of the present species.

A couple of Turnstone's eggs, very pretty and beautifully represented. "I have seen specimens," says Mr. Hewitson, "very nearly resembling some eggs of the Common Snipe." We know of one which has a darker, or rather pale brown, ground colour. Some highly interesting remarks on the habits of this species are annexed. It breeds on islets, concealing its eggs under the shelter of an evergreen bush, and is apt to indicate the site it has chosen by its activity in driving the larger Sea Fowl from the spot; Mr. Hewitson met with its eggs, in one instance, upon the naked rock.

A Lapwing's egg, with which most persons are familiar. The number of these which are brought seasonally to the London markets is most surprising.

Next follow two specimens of that of the Golden Plover, which are usually larger than the preceding, with a clear ground-colour. They are figured exquisitely.

Two of the little Ring Plover; "the first," according to the author, "the most common, both as regards shape and colour; the other is, however, frequent." Though we bow to Mr. Hewitson's superior experience, it behoves us to say that our own observation would rather lead us to consider the second figure as that exhibiting the more ordinary appearance. However, we fully accede to their being both common.

A couple of examples of the Thickknee's egg, of which species we obtained a very immature example, unable to fly, in the month of October last. Some of these birds always stay with us through the winter. Its eggs are very well figured, but we have seen many which have the ground colour clearer, and more boldly blotched than either of those represented.

A white egg, belonging to the Sheildrake. It is well known that this beautiful species, though very easily hatched and reared in a domestic state, in which it becomes even troublesomely familiar, has, nevertheless, been rarely known to breed in confinement. In the wild state it usually deposits its eggs in rabbit burrows, and all that is necessary to get it to breed in a captive condition, is merely to furnish it with artificial burrows, into which it may retire for this purpose.

Eggs of the Wigeon, and of the Shoveler, dull white, the latter somewhat more deeply tinted. The former species was first discovered to breed in Britain, by the party of naturalists who visited Sutherland in the summer of 1834, of the ornithological discoveries of which an interesting account has been furnished by Mr. Selby, in Jameson's *Edinburgh Journal*, which we heartily recommend to the perusal of every British naturalist.

An egg of the Mallard Duck and of the Teal, differing only in size; and on the next plate an example of that of the Eider, of

course larger, and of a rather deeper green ; it is accompanied by some original remarks upon its breeding habits.

Then follow those of the Goldeneyed Garrot and of the Long-tailed Sarcelle ; the former beautiful and bright deep green, the other dull olivaceous green, and smaller. We are happy to find that Mr. Hewitson is enabled to corroborate the old account of the Garrot breeding in the holes of trees, of which a friend has also assured us from observation. The Sarcelle's egg is figured from a specimen brought home by one of the arctic expeditions ; for although the author frequently met with small roving flocks of these birds when in Norway, and dissected several which appeared nearly ready to lay, he was not fortunate in obtaining the egg. A female specimen we lately examined in Leadenhall Market had the stiff tail-feathers a good deal worn, as though much used for a support when clambering. A fine male we also lately had the pleasure of measuring, and which was shot in Orkney, had the long central tail-feathers exceeding by six inches those next but one on either side, which is a greater length than we ever previously met with.

An egg of the Redbreasted Merganser, very pale brown.—“ This elegant species,” Mr. Hewitson states, “ is one of the most common of the Duck family in Norway.” “ Amongst the smaller birds,” he observes, “ which I have had an opportunity of frequently observing, I have remarked that they lay their eggs early in the morning. I was, therefore, surprised to find that two of the Redbreasted Mergansers which we shot contained hard eggs, ready for laying, as late as eleven o'clock in the forenoon.” We have noticed, in some instances, that each successive egg is, in many of the smaller land birds, deposited later every day than the preceding, and that sometimes a day elapses without the expected increase of number in the nest.

Eggs of three species of *Podiceps*, the Crested, Horned, and Little Grebes of authors. Respecting the last mentioned our author quotes Montagu, who asserts that, “ notwithstanding this precaution (of covering the eggs), they are frequently destroyed by the Water Rat.” Our friend the Water Rat—or Water Vole, as we prefer to designate him—has enough on his shoulders for burrowing into the raised banks of canals, and for storing himself a winter provision of potatoes. We acquit him entirely on the charge of destroying Grebe's eggs, or those of any other species of fowl ; the common Brown Rat is the guilty species, and the little Field Mouse will also devour the eggs and nestlings of the smaller *Insectivores*. To render assurance of the innocence of the *Arvicola* doubly sure, we have confined a large old male of this species and supplied him in turn with every kind of provision, green food and various sorts of leaves, corn and beans, young ducklings murdered by a Weasel, butcher's meat, and eggs ; of these it would never touch aught but the green leaves, and fruit, and vegetables, which it devoured voraciously, and could not even be starved into eating corn

or the ducklings, or breaking an egg ; neither would it touch nuts, nor anything else we offered, though in the wild state, we are told, it subsists partly on insect food. We trust the above will sufficiently clear its character from the aspersions which gave rise to our digression. "There is a peculiarity," Mr. Hewitson justly observes, "in the eggs of the Grebes which immediately distinguishes them from those of all other birds ; they are widest in the middle, and taper so regularly towards each end that it is not easy to distinguish that which is, in other eggs, the broadest. They are rarely seen of their natural and original purity ; when first laid they are of a spotless chalky white, sometimes slightly tinted with blue, but by coming in contact with the materials of the nest, by which they are also covered on the departure of the bird, they soon assume a very different aspect, and become besmeared and thoroughly stained through with various shades of dirty green." To this we may append that they present an absorbent, unenamelled surface, which imbibes the discoloured moisture of the nest materials in a way which few other eggs would do. The Cormorant's and Puffin's eggs are the few we allude to, but even these are not exactly as those of the Grebes. There may be a reason, possibly, for these shells absorbing moisture. The eggs of the Crested species may be always easily obtained in the season in the London markets.

A large dark brown egg, sparingly spotted with deeper blackish brown ; that of the great Northern Diver. A specimen in the national collection, agreeing in size, is of a dull white, with a few small, scattered, irregular spots, of the hue of the ground-colour of Mr. Hewitson's figure ; besides which some larger spots also appear beneath the surface of the shell. We take the opportunity to call attention to the difference, both in number and character, of the eggs of the genera *Podiceps* and *Colymbus*, brought together by systematists as the only components of their family *Colymbidæ*. It cannot be affirmed that there is much *affinity* between these genera. We rather prefer to arrange *Colymbus* among the *Alcadæ*. Their skeletons are extremely different.

An egg of the Blackthroated, and one of the Redthroated, Diver ; the former larger, as would be expected, than that of the latter, and of a *reddish* brown, with a few spots of blackish, principally at the large end. The Redthroated Diver's egg is figured of a dull olive-greenish brown, longitudinally spotted and blotched with reddish black : we have seen a specimen of the same ground-colour, but almost spotless. The Blackthroated Diver was first discovered to breed within the British Isles by the gentlemen of the Sutherland expedition ; and many interesting minutiae connected with its history will be found in Mr. Selby's paper before adverted to. We have just been examining a beautiful male, in very matured plumage, of this elegant species, which was purchased in Leadenhall market, where even the young birds are very seldom to be met with. The young of the Redthroated Diver may there be obtained continually, but specimens of that in adult plumage are not of frequent occur-

rence. Of the last-named species, Mr. Hewitson says, that, when in Norway, "we frequently saw pairs of them passing over the country in an evening, and at a great height."

*Uria troile*, or Foolish Guillemot. Two eggs of this species are represented, and we think the best that could be well selected. These are brought in considerable numbers to the London markets, and are sold cheap, so that a pretty series of them may be obtained at a small expense. Our author has furnished us with a graphic picture of their breeding haunts, which sets one all alive to peruse. We are almost sorry that space will not allow of a full transcription, and are unwilling to mar the effect by copying a portion only. It affords more pleasure to refer the reader to the book itself, which we do heartily, promising him delight in the perusal.

Our next plate has three figures in it, of the Black Guillemot's egg, excellently represented, and presenting three somewhat diverse varieties. It appears that this bird's egg is little liable to variation. "Amongst about seventy specimens," says Mr. Hewitson, "I was surprised to find so little dissimilarity: of figures 2 and 3 in the plate—the former of which is a very singular variety—I only met with two of each; the rest bear the general appearance of figure 1, about one half of them differing from it only in the ground colour being white instead of blue, the spots most commonly smaller, and more regularly disposed; a few are more sparingly, others more closely and minutely marked; they resemble the eggs of the Razorbill much more than they do those of the Common Guillemot, both as to shape and character; so much so, that any one forming a classification of birds from their eggs, which might generally be done with great and admirable accuracy, would, in this instance be led into error." "The Black Guillemot," also says Mr. Hewitson, "is not nearly so expert a diver as the Razorbill or Common Guillemot, and when disturbed usually takes to flight, passing very close to the surface of the water; it is, however, strong upon the wing, and rises with ease to the precipices where it nestles." We have known it to occur upon the Thames, far beyond London. It differs from the other, also, in always laying two eggs instead of one; and upon the whole, however externally the characters of these two birds may undoubtedly resemble, we are loth to consider them as physiologically very closely allied. It is said that the former species takes to the water and follows its parent almost immediately after exclusion, while clad in down; whereas the young of the Black Guillemot ordinarily remain in the nest till fully grown and able to provide for itself,—quitting the society of its parent when it leaves its natal rock, and associating with other immature birds of its species.

We have next a most characteristic figure of the egg of the Razorbill Auk, so exactly similar to one of the specimens before us, that we can hardly persuade ourselves it was not drawn from it. It is, the author tells us, "of an intermediate size."

Then comes the Puffin's egg; "of a dirty white, mostly marked

with various tints of colour, but so faint and indeterminate as to appear as though they were seen through the shell and proceeded from the inside, like those marks frequently observed on white eggs, occasioned by pieces of the yolk adhering to the shell. The egg figured is a pretty example of the species, and is more spotted than common. It is very difficult to procure good specimens, and unless they are taken quite fresh they become stained and dirtied throughout, in the same manner as the eggs of the Grebes, and cannot afterwards be cleaned."

An egg of the Cormorant and one of the Shag, white and "of a soft chalky substance, which is easily rubbed off, leaving a hard greenish shell beneath:" these, as is well known, soon become daubed all over, as in those of the Grebes.

And now we enter upon the large natural family of the *Laridæ*, containing the Gulls, Terns, and Peazers; for the Albatross and Petrels, in the writer's opinion, form another and very different one, as, indeed, is pretty well intimated by their eggs alone. We commence with three figures of those of the Sandwich Tern, than which, observes our author, "nothing can exceed the beauty and variety." The specimens are very well chosen, and admirably represented.

Next we have two examples of the egg of the Roseate Tern, a good deal unlike; excessive variableness in the tint and markings of the eggs amounting in this group almost to a generic character. "They seem, from the specimens I have examined," says Mr. Hewitson, "to be more constantly of a light colour, and more covered with minute dots than those of the other Terns; most of the specimens much more so than fig. 2; whilst fig. 1, possessing more of the Tern-like character, is of rare occurrence."

Three figures of those of the Arctic Tern succeed, equally unlike each other, and as exquisitely drawn and coloured. "It is quite impossible," says the author, "to give any idea of these by description. I would propose, during the progress of this work, to draw another plate of the eggs of this, as well as of the Sandwich Tern." We wish he would do the same in many other instances.

Three eggs of the little Richel Tern, (*St. minuta*), differing much less remarkably, figs. 1 and 2 shewing, as the author states, the common appearance, and agreeing with all we have seen: "fig. 3 is a variety not often met with."

Three of the Black Tern, or Viralve, as it is now sometimes called. These differ a good deal, and were selected from an extensive series of the eggs, "as affording the most opposite varieties." It is superfluous, perhaps, to add that they are faithfully executed.

Then follow three of the Mew Gull, (*Larus canus*), "selected from upwards of two thousand specimens, gathered from one island only; and chosen, not because they present the most singular and opposite varieties, but to give the best idea of the general colouring."

Two Kittiwake's eggs, accompanied by some interesting descrip-

tion. These vary excessively, "differing exceedingly in colour and markings: a variety, having a very beautiful zone of spots towards the larger end, is more prevalent than amongst the eggs of almost any other bird." An example of this variety is not presented.

Two specimens of those of *Larus argentatus*; but it is quite impossible to illustrate the species without a number of figures. They resemble closely those of *L. fuscus*; and "the only characteristic distinction," observes Mr. Hewitson, "that I have been able to detect, after examining a number of each, is, that the eggs of the Herring Gull are occasionally marked with larger blotches of colour than those of the Blackbacked species."

Next are two figures of those of the Great Blackbacked Gull, which, "though often very much resembling those of the Lesser Blackbacked and Herring Gulls, are generally marked with much larger blotches of colour; they are, also, for the most part, considerably larger; but I have seen several specimens that were very little, if any, bigger than some large eggs of the Herring Gull. \* \* It makes a nest of a quantity of dried grass, carelessly heaped together; and the eggs are three in number, and never (I believe) four, as stated by Mr. Selby; the eggs of all the species of the genus *Larus* being confined to three—at least as far as my own observation goes. \* \* Those of the present species are excellent to eat; when boiled, the yolk is much deeper in colour than those of the common fowl, and the white transparent: they are in consequence a most valuable acquisition to the owners of the islands upon which they are deposited."

Two specimens of the egg of the Lesser Blackbacked Gull, much unlike each other. "These birds, after they have begun to sit, become very bold in defence of their eggs: while amongst them," observes Mr. Hewitson, "I was amused with one, near the nest of which I was sitting. It retired to a certain distance, to give it full force in its attack, and then made a stoop at my head, coming within two or three yards of me, and repeating the manœuvre incessantly till I left it." Mr. Darling, the keeper of the light-house on the island, informs me, that an old woman who was in the habit of gathering their eggs, had her bonnet almost torn to pieces, it being perforated throughout with their bills."

*Lestris cataractes*; two specimens, one paler and rather less spotted than the other: we have seen it of a pale brown, with a few abrupt, large, scattered spots. Our author justly deprecates the cupidity and callous selfishness of a Hull bird-stuffer, who, regardless of the wishes of his kind entertainer in Shetland, the only British locality where this noble species breeds, nearly exterminated a fine colony of them, the spirited protectors of the scattered flocks of the inhabitants. Their breeding place at Foula was "within a few paces of the mountain top, 1400 feet high. More labour is bestowed in the formation of its nest than by any other allied species: it is large, and composed of a quantity of the moss which grows in such moory situations; the eggs are two in number, the time of



laying them towards the end of June ; they are easily found, and their situation pointed out by the poor bird itself, in its anxiety to defend them. It is impossible not to admire its unflinching boldness of attack ; soaring high above you, it will, on your approaching its nest, suddenly pounce down at a short distance from you to the level of your head, and flying directly at you, and with great force, will strike you with its powerful beak, immediately rising to repeat the attack, which is continued during your stay, and with increasing rapidity as you near its nest. It is considered by the inhabitants as the protector of their flocks, and with good reason, and is by them protected in return. No Eagle would, with impunity, approach the dwelling-place of a bird possessed of such courage and intrepidity. When soaring high above you it much resembles an Eagle in its flight, when standing near you on the ground you would not suppose it to be the same bird ; it has then a thick, heavy appearance, and a Duck-like waddle ; far different, again, when, like the Arctic Feazer, it is in pursuit of other birds to plunder them of their fish : I have seen it thus attack the Solan Gannet."

We have next three figures of the egg of Richardson's Feazer, all different, and unlike every member of a series with which we have been comparing them. "Those figured," Mr. Hewitson tells us, "are selected to shew the near approach which some of them make to the eggs of other species [it may be added, of a widely different genera], the middle figure resembling most closely that of the Whimbrel Curlew ; the third figure shews a form which very rarely occurs, and is so much like some of the eggs of the Mew Gull as not to be known from them." There are some observations worthy of attention on the plumage of this species, which may be considered in connection with the presumed distinctness of the *Budytes flava* and *neglecta*, which offer not the slightest difference, except in colour. Mr. H. observes that "you are made aware of approaching their breeding places, long before you reach them, by their loud, harsh, and most singular cry, more nearly resembling that of a Cat than of a bird : nothing can exceed their solicitation as you near their eggs ; seating themselves at a short distance from you, they flutter about and creep along the ground, extending their wings and expressing, with a language as intelligible as words, their extreme anxiety." Yet are they "the merciless persecutors of the other species of sea-fowl in their neighbourhood ; sucking their eggs whenever they are left uncovered by their owners, and with unavoidable speed pursuing them over the surrounding sea, in order to compel them to disgorge those fish which they had captured for themselves or for their young ones. They are the Hawks among the feathered inhabitants of the ocean, fearlessly attacking even the Greater Blackbacked Gull, and evincing, in their amazingly rapid evolutions of flight, a rapidity of wing which, I should imagine, surpasses that of any other bird I know."

On the following plate are two figures of the Manks Shearwater's egg ; white, as are those of all the Petrel tribe, but one of them

having a much browner tinge than the other : they are of the size of those of a dunghill fowl. It appears that the young are held in very high estimation, by the fisherman, as food.

Lastly, we have a figure of the Fulmar's egg, and one of the Storm Petrel's ; both white, the former equalling in size, or exceeding, that of the Herring Gull, the latter about the magnitude of a Black Thrush's. Both are said to exhale a strong musky odour, which they retain for a length of time. Among a number of Storm Petrel's eggs received by the author subsequently to the publication of this plate, were two specimens " beautifully marked round the larger end with very minute dots of red and purple, forming a clear though faintly-marked zone." Mr. Hewitson has some pleasing observations on this bird's habits, which appear to be more exclusively nocturnal than is generally considered. " Their manner of walking," he says, " is very light and pleasing, and differing from that of every other bird I have seen ; they carry their bodies so far forward, and so nearly horizontal, as to give them the appearance of being out of equilibrium." There has been a great number of these curious little birds, during the last winter, in the London markets, in consequence of the violent gales that we have experienced. It invariably lays but one egg, like the rest of its tribe, and not two, as has been represented.

Since these volumes have been bound up, Mr. Hewitson has made considerable progress in his undertaking, as much, we think, as could reasonably be anticipated. It is by far the most elegant work of the kind that has ever been published, and reflects much credit on all who have been employed in it. It would be superfluous to repeat the eulogiums we have all along bestowed in the course of the foregoing commentary. No person engaged in ornithological pursuits should be without it.

*Birmingham and its Vicinity, as a Manufacturing and Commercial District.* By William Hawkes Smith. London: Tilt. 1836. 8vo.

WE have already (vol. ii., p. 264) presented our readers with an analysis of the earlier numbers of this publication, and now that the volume is completed we feel a pleasure in renewing the praise it so well deserves. The work contains much interesting and useful information relative to an extremely important district, and the talent and research indicated both in the text and the notes is highly creditable to the author. The history of the town of Birmingham is succinctly abstracted, from various published authorities, and from personal observation and inquiry ; and the tone of the descriptive portions, generally, evinces a fondness for antiquarian pursuits. The engraving given at page 9, part iii, is interesting in this respect, as including representations, not, we believe, before published, of the fine monumental sculptures in St. Martin's Church ; the ancient brass manorial standard bushel-measure, and other objects

of curiosity. The numerous plates with which the work is illustrated are from the burin of Mr. Radclyffe, and are most elaborately and beautifully engraved.

Our allotted space will not permit of many extracts from the work of Mr. Smith. We must, therefore, content ourselves with an abstracted description of the subjoined plate, illustrative of the Geology and Mining of the South Staffordshire Coal-field, with the use of which we are favoured by the publishers.

After describing the boundary of the Coal-field, which is well displayed in an accompanying map, by means of shades and lines of varying intensities, the author proceeds—(part i., p. 23 *et seq.*) :—

“Of the coal strata, the principal one is nearly thirty feet thick, and takes the descriptive appellation of “ten-yard coal.” \* \* The general inclination, or *dip*, of the entire strata is from north to south; but there are various irregularities observable in this course. Of these, the most remarkable are those in which the whole recumbent mass has been forcibly raised; bringing to view a thick bed of lime-stone, which, in all probability, is the primitive substratum throughout the district. Its angle of inclination varies from 45 to 80°; and as it has been raised from its original location, 300 yards below the surface, the strata are found to incline each way; tending to a junction at the summit, and sloping on each side like the roof of a house.—(fig. 1, b.)

“The great elevation of the lime-stone here alluded to, and which occurs at the Wren’s Nest Hill, near Dudley, is more definitely exhibited in fig. 2, in which *c c* and *d d* represent the position and inclination of the elevated strata—*g h* the line or face of the country—and *a b* a subterranean canal, 2,000 yards in length, cut, with immense labour, at a great depth, connecting itself with the other canals in the neighbourhood, and thus affording the facility of transit for the heavy mineral, through which it is driven. Fig. 4 represents the curious appearances exposed in a deepened cutting of the road at the Hayes, between Hales Owen and Stourbridge, and which laid open a long series of coal and rocky beds, dipping to the east, and extending to the solid lime-stone, at *a*. Fig. 7. is a sketch of a fragment of the Dudley lime-stone, full of fossil remains, as Trilobites, Corals, Sponges, Pectins, and other bivalved testacea; with detached vertebræ of Encrinurites.”

“That the stupendous events which caused these elevations and depressions took place after the numerous upper beds were deposited, is rendered evident by the regularity of their relative collocation, even where *faults* or fractures occur. A remarkable disruption of this kind runs through the Bradley mines, and proceeds in a southerly direction to a great length. On the western side of this fracture, with scarcely any intervening space, the main coal and all its attendant beds lie from 80 to 100 yards nearer the surface, than on the eastern side.”—(fig. 1, b).

The other strata of useful minerals are then described, viz., “the iron-ore, of the kind denominated clay ironstone; technically, a carbonated hydrate of iron mixed with clay,” and “the fire-clay, (*leucargillum*), so called from its power of sustaining very intense heat without fusing. This substance is extremely serviceable in the manufactures, being used for crucibles of all kinds; and for the bricks with which furnaces are lined.”

The last substance particularly described is that which is denominated Trap or Basalt, and which, from the situation of its principal quarries, is commonly called “Rowley Rag.” It is presumed, from

the position in which it is found—sometimes injected between the other strata, forming *dykes* of hard rock ; and sometimes appearing above the surface in considerable elevations—to be of volcanic origin ; and in fig. 3 it has been endeavoured to give some idea of the conceivable action of the convulsion of Nature, which was accompanied by the eruption of such a mass of fused matter.

Thus, then, figs. 1 and 3, though, of course, imaginary in their details, may be considered as presenting, in section, the probable disposition of the various strata, from the north-eastern point, where the *thick coal* crops out and is lost near Bilston, to the south-western boundary, where it rapidly descends, as it were *in steps*, to great depths, exhibiting a miniature picture of the spectacle which would meet the eye were a deep cutting to be made through the entire district, and shewing such faults, dykes, elevations, and depressions as the experience of the miner discovers actually to prevail. The position of the *thick coal* and the *lime-stone*, respectively, being marked by the shaded lines *m* and *n*.

The remaining figures on our plate, (figs. 5, 6, and 8), refer to the chapter on the *Coal Mine*, which contains a good deal of graphic and lively description. (p. 36, *et seq.*). The work of raising the coal is usually performed by the steam-engine, but in certain situations where the depth is not great, and where the dip is considerable, the more ancient machine, the *Gin*, (fig. 8) is still used. The name of this apparatus, as our author speculates at page 7, is “a slipshod corruption or abbreviation of ‘engine’—as we say *van*, adopting the final syllable of *caravan*.” An examination of the figure will sufficiently explain its construction and adaptation.

Figs. 5 and 6 are, respectively, a section and a ground-plan of the mode of “getting” the *ten-yard coal* ; to which the following references may be made:—*c* the *shaft* ; *G G* the entrances to the *stalls*, or places where the work is proceeding ; *B B* *pillars* of coal of great thickness, left to support the superincumbent strata ; *A* the ungot coal. The white lines round the working, (*G G*, fig. 6,) represent the *air-head*—a narrow passage with apertures communicating with the openings or *stalls*, and constructed for the purpose of introducing a current of pure air into the mine. A supposed improvement in this important department of mining—*Ventilation*—is also exhibited in these figures:—*D D* is an *air-pipe* conducted down the shaft *c*, and extending by its ramifications, *E E*, into the working stalls ; capable of being easily lengthened, shortened, or removed, as the case requires. *F* is a *blowing*, or *air-cylinder*, attached to the mine-engine, by the operation of which a constant and powerful stream of air would be impelled into the mine, spreading itself in jets from the mouths of the arms, *E E*, and driving out the deleterious vapours and gases that are generated in the recesses of the mine. This mode of ventilation, it appears, is suggested by Mr. Harper of Wednesbury. It has never been brought into practice, but it appears to be dictated by good sense, and, if found effectual, would have the additional merit of economizing labour, and of preventing

the great waste of coal which is unavoidable in the excavation of the *air-heads*.

The chapter devoted to Mineralogy and Geology is highly interesting, but as our space will not admit of more extended extracts we must refer our readers to this section of the work.

*Mundi et Cordis : De Rebus Sempiternis et Temporariis : Carmina.*  
Poems and Sonnets. By Thomas Wade. pp. 285, 8vo. London.

THIS is a volume of intrinsic poetry, instinct with all the attributes of the master—one who seeth through things clearly with a spirit's eye. Thomas Wade is the *interpreter* betwixt Wordsworth and Shelley : he has all the holy glow and fiery fervour of the one, with the profoundness of the other, united to a solemn splendour of expression peculiarly his own. His mind is of a high order ; the keenest sensibility is wedded to profoundest thought : he has an ear attuned to the nicest shades of harmony—a soul that trembles into emotion at touch, sound, colours. Stored with the riches of classic lore, imbued with the spirit of the antique, pre-eminently with that which exalts, ennobles, purifies—with that which, while it lifts us above “ this sphere of earthliness,” reconciles us to, and makes supportable, the infirmities of our humanity. Mr. Wade is nevertheless, like all true poets, in advance of the spirit of the age. In his muse there is a majesty, a voluptuous and august refinement of diction—the outward and visible sign of thought—altogether new and unprecedented. The volume before us consists, for the most part, of minor pieces and sonnets ; but their brevity is atoned for by their quality. The sonnets, of which there are more than a hundred, are of great beauty and variety, and will endure the test of “ Time.” The love enunciations of that composition are of intoxicating beauty. Every gradation of feeling of the all-absorbing passion is pourtrayed with a potential subtlety startling and new. We will introduce some examples :—

“ PROMISE.

“ I go ; but do not weep !—I will remember  
Thine very accent till we meet again ;  
The bright fire of my love shall ne'er know ember,  
But purely burn, like to the soul of wine :  
I'll think and dream of thee : I'll ne'er recline  
To slumber, but I'll wish my couch were thine ;  
Nor wake and sigh not for thee : and by letter  
I'll break the distance which our love doth fetter,  
And speak to thee in love-born characters :  
And on the wide sea-waving of my verse  
A rich shower of sweet thoughts of thee shall rain,  
And stories of our hearts will I rehearse :  
Let this assurance stanch thy bleeding woe—  
Thine image follows me where'er I go.”

## "THE TOKEN-FLOWERS.

" I have been gazing on those eloquent flowers—  
 The love-named 'Heart's-ease' and 'Forget-me-not'—  
 Which thou did'st give me in those last sweet hours  
 That beam'd quick life before our death of parting.  
 They are both wither'd!—That the first should die,  
 To my repining heart is nothing strange;  
 For never heart's-ease fell to passion's lot  
 In this woe-weary world, where chance and change  
 Still drug Joy's purest cup with misery.  
 But my soul sighs, and to my eye is starting  
 A thoughtful tear, to think the last must perish:  
 O! I would have it live until the hour  
 When thy remembrance, Dear! I cease to cherish—  
 What an undying thing were then that sacred flower!"

## "THE ANSWER.

" Here, in my lone abode again I sit,  
 With a tired heart, for ever toward thee yearning;  
 And visions of thee, in all aspects, flit  
 Before my sleepy eyes, that cannot sleep,  
 Kept open by my troubled mind's discerning.  
 Through the long night sad vigils did I keep;  
 And spectres of thee, and imaginings,  
 Were in me and around me. I did weep,  
 To think on all thy love; and all the grief  
 Which must disturb thy spirit in its springs,  
 After our hurried parting, when relief  
 Of tears or sighs was by our state forbidden;  
 And our one heart was as a folded leaf  
 In which oracular characters are hidden.

" But, then; the thought—the deep, prophetic thought,  
 That in this being we should meet again,  
 Did still the turbulent sorrow of my soul;  
 And my sweet hopes kiss'd thine—but had no fear;  
 For a triumphant flag did passion rear,  
 That stream'd into the future, glory-fraught!  
 I cannot cease to love thee: though the chain  
 Of this world is around me, its controul  
 Is feeble; for the powers of love and song  
 Wave a magician's wand above my spirit,  
 And sway me with a talisman divine  
 Which I resist not: others may inherit  
 My heart's wild perfume; but the flower is thine.  
 This read where thou didst write. All blessings round thee throng!"

We appeal to all who think and feel—Are not these true pictures of the human heart? They are, true, profound, lasting. And yet there are those, of literary pretensions too, who cannot discriminate between this and ordinary versification; what may be the texture of their heart and brain we cannot divine. God pity and forgive them! Poor Fakenham Ghosts!

The condensed power of Mr. Wade's genius is felicitously enunciated in the Sonnet. Familiar as we are with the masters of this composition—Petrarch, and Shakspeare, and Wordsworth—we do

not hesitate to award the highest meed of approbation to the oblation to the poet Shelley. For force of expression and sublimity of sentiment it has no equal. The subject and the song are alike unparalleled:—

“SHELLEY.

“Holy and mighty Poet of the Spirit  
That broods and breathes along the Universe !  
In the least portion of whose starry verse  
Is the great breath the sphered heaven’s inherit—  
No human song is eloquent as thine ;  
For by a reasoning instinct all divine,  
Thou feel’st the soul of things ; and thereof singing,  
With all the madness of a skylark springing  
From earth to heaven, the intenseness of thy strain,  
Like the lark’s music all around us ringing,  
Laps us in God’s own heart, and we regain  
Our primal life ethereal ! Men profane  
Blaspheme thee : I have heard thee *dreamer* styled—  
I’ve mused upon their wakefulness—and smiled.”

We have heard this from the lips of a fine elocutionist : the effect was marvellous.—Here is something that, if we mistake not, will find its way to the heart :—

“AN EXHORTATION TO MANKIND.

“When will it be that men shall kinder grow  
In human intercourse ; and not thus, savagely,  
Spring upon each occasion to o’erthrow  
Their fellow-travellers through mortality ?  
God hath apportioned us enough of woe  
In this brief journey ; from within derived,  
And from the elements, in which we sicken,  
Grow weak and die : let not man be deprived  
By man of that poor solace which doth quicken  
The flagging heart and the o’erlabour’d brain,  
And temper to endurance, when self-stricken,  
Or time and storm-worn. Transient thing ! refrain !  
Sting not thy brother insect till he perish :  
A life brief as thine own, vex not ; but cherish.”

We trust Mr. Wade will pardon us if, for a moment, we relax our critical dignity, and, flinging aside our pen, leap from our critical perch, and fold him to our heart.

Prose praise would be a poor return for these soul-filling strains. But before we close this brief notice with our expression of reverence of the author’s genius, we would ask Mr. Wade why, when the choice was open to him, why did he not write for the middle-rate, muddy-minded million ? What chance has he of popularity ? Why is he so “abstruse ?” He will understand us, we opine.

Howsoever much we may regret, the fact cannot be disguised that poetry of this supreme order is not likely to meet with extensive sympathy. Few and far between are the minds that will fully ap-

preciate it; its compass and power is beyond the common cope. The multitude sympathises most with what assimilates to itself. We are satisfied, however, that the discriminating few under whose notice this shall fall, will feel as grateful to us for directing their attention to the author, as are we gratified in presenting his claims to their regard.

*The Fallacy of the Art of Physic as taught in the Schools; with the development of new and important Principles of Practice.* By Samuel Dickson, M.D., Cheltenham, formerly a Medical Officer on the Staff. Edinburgh: A. & C. Black; Longman, London; Lovesy, Cheltenham. 1836. 8vo., pp. 180.

It requires not a little courage to write such a treatise as the one before us, attacking as it does the established opinions of the whole faculty, and attempting to prove the fallacy of the art of physic as taught in the schools; but the author urges that "if multiplicity of patients be at all a test of successful treatment, the profession may draw a favourable inference from the fact that, in a less period than three years, I have prescribed for upwards of eight thousand private patients." What Dr. Dickson mainly labours to establish is that there is but one disease, *remittent fever*, and that every disease is a variety of this type. There is much useful matter in the volume, and even supposing his theory false, we think such a book calculated to do good, if it were only to excite a more vigorous research into the errors and prejudices of routine practitioners. The author appears to be not unfavourable to Homœopathy, and tells us that he had himself discovered the principle of *similia similibus curantur* before he had even heard of the doctrines of Hahnemann. This is a new and most convincing proof of the truth of that theory. When, however, our author had advanced thus far, we must hold him blameable for not looking further into the subject; and after the somewhat harsh language in which he occasionally indulges towards his brethren (*for not adopting his own views, which he now for the first time promulgates*), he has no excuse for ridiculing the small doses of the homœopaths: let him remember that *le vrai n'est pas toujours vraisemblable*. But although Dr. D. has not condescended to dive deeper into Homœopathy otherwise than by means of faulty reviews of homœopathic books, he has effected a great improvement on the practice of the old school, and his book is replete with judicious remarks. Take the following as examples:—

"The same remark attaches to palpitation and temporary cessation of the heart's action; diseases constantly misunderstood, and as constantly maltreated. That bauble of Laennec—the stethoscope—which the reader will pardon me for holding in heterodox contempt, is, of course, employed. The very application of the instrument to the chest deranges the action of the lungs and heart; the patient's attention to the operation, in most instances, calling off the influence of the brain, by alarm or otherwise, from the functions of the body. The most extraordinary prognoses are consequently



given—extraordinary if they did not, by the subsequent treatment, like prophecies, tend to verify themselves.”—p. 16.

Again :—

“The division of the profession into Medicine and Surgery has given rise to a vast number of operations which, so far from alleviating the sufferings of man, have materially added to them. Among these I must particularly reprobate the employment of the knife in every kind of fistula, numerous tumours, including cancer, the abuse of the bougie, the extirpation of the upper and lower jaw, and many other sanguinary practices, which so often help the surgeon to a carriage and the patient to a coffin. A proper knowledge of medicine and its mode of action requires but seldom the formidable assistance of operative skill—a skill which the generality of students, in their endeavours to acquire, too frequently neglect the very interests it is the business of their profession to keep in mind.”—p. 22.

Dr. D. also agrees with Hahnemann in abjuring, in every case, the practice of bleeding—a subject which certainly requires much reform. The work is written in a pleasant style, and if the Doctor’s language be occasionally unwarrantably strong, he undoubtedly has thrown out hints well worthy of attention; and, without conceding to his theory *in toto*, we may recommend the perusal of the volume to the improving part of the profession.

*The Ornithological Guide; in which are discussed several interesting points in Ornithology.* By Charles Thorold Wood, jun., Esq. London: Whittaker & Co. fcap. 8vo. 1836.

IN this book-making age octavo volumes are the work of a few short weeks, and the majority of the publications of the present day would certainly tend to prove the truth of our assertion. On taking up the guide before us, we expected—judging from the date of the preface, September, 1835—we had at length met with a book on which unusual care and labour had been bestowed. We must, however, say that we were disappointed. The volume is divided into three sections. The first of these is on the subject of nomenclature, scientific and vernacular. We should have been better pleased had our author omitted the somewhat harsh critique on the letter of Mr. Strickland to this Journal, especially as it had already been replied to. A chapter on nomenclature might have been introduced without implicating Mr. Strickland so deeply in the matter: even supposing Mr. S. to be in the wrong (which we are inclined to believe), surely it is not necessary to resort to abuse to establish this fact. We rejoice, however, to see the reform of English names advocated, and hope the example may be followed by others. The second section consists of notices of ornithological works. In Mr. Neville Wood’s *Ornithologist’s Text Book*, one hundred and fifty works are included, in the present *Guide* only fifty, or exactly one-third; we leave our readers to form their own conclusion. Lastly, we have a list of British birds for labelling

cabinets. It is well worth the cost of the book ; it is the best catalogue extant, and would have deserved our unqualified commendation, had it not been for the unfortunate spelling of many of the names. We cannot compliment Mr. C. T. Wood on his style—it is often pedantic, and not always even correct ; but still, with all its imperfections, the first chapter contains hints well worthy attention, and the catalogue will prove useful to the collector.

*Wanderings and Excursions in North Wales.* By Thomas Roscoe, Esq., with 51 engravings, by W. Radclyffe, from drawings by Cattermole, Cox, Creswick, &c. London : C. Tilt—Birmingham : Wrightson and Webb. 1836. Royal 8vo. pp. 261.

*Wanderings and Excursions in South Wales*, including the Scenery of the River Wye. Parts i. to iv.

HAVING already had occasion to notice this beautiful and original work in previous numbers, we do not consider it necessary to present our readers with a lengthy review of it, now that the first part of Mr. Roscoe's undertaking has come to a close. We may, however, observe, that the talent and care we had the pleasure of remarking in the early numbers, are equally conspicuous throughout the work, which is completed in 17 parts. Mr. Roscoe's *Wanderings* are alike elegant, entertaining, and useful ; and both the letter-press and the admirably-executed plates cannot fail to prove interesting to every one.

The *Wanderings in South Wales* are a continuation of the above work, and its plan and character are precisely similar. The style is so chaste, and the descriptions are so glowing and animated, that, but for want of space, we could not have resisted the temptation of making a few extracts. We look forward with considerable interest to the termination of the work, when we shall again return to these classical pages, and the equally beautiful engravings, by the eminent artists employed upon this publication.

*The Philosophy of Education*, with its practical application to a system and plan of Popular Education as a National Object. By James Simpson, Advocate. Second edition. Edinburgh : A. and C. Black—London : Longman. 1836. fcap. 8vo., pp. 288.

THIS is a second edition of Mr. Simpson's deservedly popular treatise, originally published in 1834, and entitled—*Necessity of Popular Education, as a National Object*. The work has undergone a careful revision, and is now published at a reduced size and price, by omitting the treatise on Homicidal Insanity and Criminal Legislation, which the author proposes to issue in a separate form. To give our readers a detailed analysis of the contents of a work so widely disseminated, would be superfluous : it is a publication eminently calculated to correct the errors and prejudices which exist on the important subject of educa-

tion ; and there is scarcely a single sentence in the justice of which we do not most heartily agree with the author. The Appendix contains much interesting information relative to infant schools and other educational establishments. The only thing in which we conceive Mr. Simpson to have failed, is in the classification of the mental faculties ; and we perfectly concur with our respected cotemporary, the *Phrenological Journal*, in wishing that he had not included the organs of Hope, Firmness, Wonder, Ideality, Wit, and Imitation, amongst the moral sentiments. Wit is, we think, rather a reflecting than a moral faculty, though we are doubtful of its right to a place in either class.

- I.—*The Harmony of Phrenology with Scripture* : shewn in a refutation of the Philosophical Errors contained in Combe's *Constitution of Man*. By William Scott, Esq. Edinburgh : Fraser & Co.—London : Smith and Elder. 1836. Small 8vo., pp. 332.
- II.—*An Examination of Mr. Scott's Attack on Combe's " Constitution of Man."* By Hewett C. Watson. London : Longman & Co. 1836. pp. 38.

Mr. Scott is a phrenologist, though it may well be doubted whether his knowledge of the true science of mind has been of much service to him. As his volume is so glaringly invidious, and contains in each page such a host of "philosophical errors," we shall not condescend to give it a detailed analysis. We must, however, do Mr. Scott the justice to say that one or two of the speculations he has touched upon are curious, and not altogether unworthy the attention of the immortal writer whose admirable work he has so unsparingly criticised. Those who are disposed to place any reliance on the pages of Mr. Scott will find their fallacy cleverly and amply refuted in the pamphlet of Mr. Watson, the title of which we have extracted above. Mr. W. has only deemed it incumbent on him to analyze a small portion of the book, and we are by no means inclined to censure him for his forbearance.

*A Nomenclature of British Birds* ; being a Systematic Catalogue of all the Species hitherto discovered in Britain and Ireland, intended for Labelling Collections of British Birds and their Eggs. By Henry Doubleday. London : Westley & Davis. 1836.

Mr. Doubleday commences his preface by endeavouring to prove the catalogue of the Rev. F. O. Morris to be comparatively useless. Without, however, following him in this discussion, we must say the present pamphlet falls very far short of our expectations. The author has judiciously employed the classification adopted by Jenyns ; but the English nomenclature is, in our opinion, defective, and we cannot, therefore, recommend the publication to our readers, although we must admit that it contains no very glaring errors. The names are neatly and clearly printed, but we miss the double lines

between each species, which have so good an effect in Mr. Morris's list.

*Two Lectures on Modern English Literature*, delivered in the Literary and Scientific Institution at Staines, in November, 1836. By the Rev. Robert Jones, D.D., M.R.S.L., &c. London: Harvey & Darton. pp. 44.

THESE lectures—printed at the desire of the members of the Society to whom they were delivered—are written in the usual chaste and elegant style of Dr. Jones. They will, doubtless, fulfil the desired end, of exciting an interest in English literature; but the sketch is so extremely brief and rapid as scarcely to bear criticism. Dr. Jones is fully competent to write a much more detailed treatise on the subject, and we should be most happy to see such a volume from his classical pen on our table.

*The Naturalist's Library.* Conducted by Sir Wm. Jardine, Bart., &c. Mammalia. Vol. VI. *Ordinary Cetacea, or Whales.* Edinburgh: Lizars—London: Highley. 1837. fcap. 8vo.

THE present volume of this popular series is one of more than ordinary interest. To the general reader the accounts of the Whale fishery cannot fail to be amusing; and the book contains many observations of value to the naturalist. Much confusion has hung over the *Cetacea*, and any additional attempts to elucidate their history deserve the thanks of the cetologist. The chapter on the comparative anatomy of the *Cetacea* is exceedingly well written, and contains many valuable observations: the descriptions of species are replete with interesting details, and the plates are as numerous and excellent as usual. It is not for us to institute an analysis of any portion of a popular volume like the present, but we will present our readers with an extract from the observations on fossil *Cetacea*:—

“There are distinct records of portions of skeletons of Whales having been discovered on the continent of Europe, as well as in various parts of Britain, &c. One of these was discovered by M. Cortesi, in 1806, on the east flank of Monte Pulgnasco, one of the Apennines, about 600 feet under the summit, which is itself elevated 1200 feet above the neighbouring plain. In this part, the hill consists of regular beds of blueish clay, inclined towards the north, and filled with marine shells. The Whale was found lying in the same direction with the strata which inclosed it, the head pointing northwards. This skeleton was nearly perfect, although some of the ribs were somewhat out of their proper position. The vertebræ were lying on the right side; a great many teeth of a small species of Shark, and innumerable shells surrounded it, especially a small variety of Oyster, many of which were attached to the left side of the vertebræ, lying uppermost. The regular attachment of these Oysters is well worthy of consideration, as it goes to show that they must have been fixed to their position while alive, and, consequently, that the skeleton had long lain at the bottom of the ocean. M. Cortesi discovered another skeleton in 1816, in the same kind of strata,

and in a neighbouring valley. It was not in such good preservation, and could not so easily be disengaged from the surrounding rock. Its head was only four feet long, and the total length 12ft. 5in. It was situated at a lower level than the other, at 1200 feet under the summit of Monte Pulgnasco, and 1400 feet under that of Monte Grogio, the two nearest hills. This has been designated, by the authority last quoted, *Balæna Cortesii*.—A cetaceous animal of much larger dimensions was discovered, in 1775, in Paris. A wine-merchant, in la Rue Dauphine, while cutting trenches in his cellar, discovered a fossil bone of considerable dimensions, in a yellowish and sandy clay, which appears to be the natural soil of the locality. Solicitous to spare the labour necessary for its entire extraction, he broke it, and raised a portion weighing 2 cwt. This attracted the attention of the curious; a cast was taken by Lamanon, and a sketch and description were published in the *Journal de Physique* for 1781. This cast, with additional sketches, fell into the hands of Cuvier, and he, with that success which attended all his labours in this department, detected it to be a portion of the right temporal bone of a Whale. He compared it with corresponding portions of others, and concluded that the length of its head was about 16 feet, and that the total length of the animal to which it belonged could not be less than 54 feet, without including the tail or lips, which would raise it to about 60 feet. Cuvier, moreover, remarks, that, although this size agrees with that of the mysticetus, yet the details of the shape, and the comparison of the proportions, indicate decided differences. His conclusion is, that, according to all appearance, this fragment belongs to a cetaceous animal of a species which is unknown, even among fossiles.”—p. 152.

We should not omit to mention that the volume contains a portrait, and a short though interesting memoir of Lacépède, who, it is well known, was a musician as well as a naturalist.

*Sacred Philosophy of the Seasons*; illustrating the Perfections of God in the Phenomena of the Year. Vol. II.—Spring. By the Rev. Henry Duncan, D.D. Edinburgh: W. Oliphant and Son —London: Hamilton, Adams, & Co. 1837.

IN *The Naturalist* we noticed the former volume of this interesting and instructive work, bestowing upon it the commendations it seemed so richly to merit. The appearance of the present volume fully bears out our favourable anticipations, and as the scope for observation is generally greater in spring than winter, there is greater variety in this than its precursor, while the plan is adhered to with all the fidelity which was requisite. The physical conditions of the earth during the vernal months are briefly adverted to, and then the effects of the alterations in them, as manifested by the revival of vegetation, and the assiduity of birds to hatch their brood, are introduced. “The latter part of the volume,” states the preface, “is devoted to an exemplification of those adaptations and properties in the soil, and in vegetable substances, which give rise to and reward the labours of the agriculturist, and which thus lay the foundation of civilized society, and afford a stimulus to progressive improvement in the arts and sciences.” In the prosecution of this subject many interesting facts, some very recently made known, are adduced, and each is caused to

“Unfold its store of argument”

in the same tone of devout philosophy which characterizes the preceding volume. Few could read these volumes without being made wiser, no one could peruse them with any degree of attention and not be made better. To have the mind imbued with such sentiments is one of the greatest of earthly blessings, and one of the surest ways we can take

“To walk from holiness below  
To holiness above.”

How truly does the amiable Bernard Barton put the case:—

“O! look up to the soft blue sky  
Arching above thee bright and fair:  
Cold is the heart and dull the eye  
Which feels not, sees not, God is there!

Look round thee on this spacious earth,  
With every varied beauty rife:  
Starts not an instant thought to birth  
Of Him whose presence gives it life?”

Our limits forbid our making any extracts, and it is besides quite unnecessary, for the public has shewn its appreciation of the first volume so fully as to bring it already to a second edition, which has given the author an opportunity of considerably improving the arrangement; and we cannot doubt but that an equally favourable reception will attend this second volume.

*The Physiology of Digestion, considered with relation to the Principles of Dietetics.* By Andrew Combe, M.D., &c. &c. The second edition, revised and enlarged. pp. xxviii, 350; small 8vo. London: Simpkin, Marshall, & Co.—Edinburgh: Machlachlan and Stewart. 1837.

As we fully anticipated, this excellent and justly popular treatise approaches to a third impression: the first was large; so was the second, which has been carefully revised and considerably enlarged. The first Part, which is introductory and physiological, includes much valuable information communicated in a style remarkably perspicuous and intelligible by unprofessional readers. We recommend, in an especial manner, the sixth chapter of the second Part to the attention of invalids and convalescents. Altogether, the volume abounds with principles and precepts peculiarly adapted to secure the advantages of *health*—the principal element of comfort and happiness.

*A Practical View of Homœopathy*; being an Address to British Practitioners on the general Applicability and superior Efficacy of the Homœopathic Method in the Treatment of Disease. By Stephen Simpson, M.D., late Resident Practitioner at Rome. London: Baillière, Regent-street. 8vo., pp. 350. 1836.

IN a subject so deeply interesting as Medicine must ever be to the human race, and where so much depends on the fitness or unfitness of the physician or the system he adopts for the eradication of disease, the public ought, undoubtedly, to be aware of the general plan on which they should be treated, and ought to be possessed of knowledge sufficient to detect the quack from the enlightened physician. Thus, however much it may be the interest of the *profession* to repel any sudden and apparently violent dispersion of their acknowledged theories, it will, in equal ratio, behove the *non-professional* public to investigate with care any new system—however “improbable and grotesque” it may at first sight appear—that may be propounded. Montaigne very justly observes “*le vrai n'est pas toujours vraisemblable.*” This seems to apply admirably to Homœopathy. The small doses administered by the new school have so startled the routine doctors, that they consider it needless further to examine the method. Indeed, it would appear that the original discoverer, Dr. Hahnemann, has, by his exaggerations and over zeal in the cause, given much occasion for just reprehension. To these extravagancies many of his more devoted followers still adhere; but others—amongst whom we must class Dr. Simpson—rejecting many of Hahnemann’s *speculations*, and carefully gathering together *facts*, have arrived at far more reasonable conclusions. We must ourselves confess, that a perusal of the learned discoverer’s books on the subject, made but a small impression in favour of the doctrine; but a careful survey of the work before us, containing the opinions of many of the most eminent German physicians, has left no doubt in our minds, that the advantages of Homœopathy over Allopathy are immense: 1st., because the disease under the new method is eradicated in less than half the time that it could be by the ordinary plan; 2nd., because the copious evacuations and excessive debility—too often the effects of allopathic treatment—are avoided; 3rd., because the action of the medicine is less violent, and consequently allows the patient considerably more ease; 4th., because the medicines are without taste, and this is especially valuable as regards children; and, 5th., because the reduction of the druggist’s bill will be considerable.

These five considerations, if just, are surely sufficient to point out to any one the immense practical utility of Homœopathy: whether or not they are just, it is the duty of every one to determine for himself. We are of course well aware that the introduction of it will be retarded as long as possible, and that the negative verdict of the family doctor will for a time successfully prevent its gaining ground; but the opposition will only be temporary, for who can, in

the end, stem the current of favour in the cause of TRUTH? Nay, more, we conceive the violent attacks which this system has sustained abroad, and with which it is beginning to be persecuted at home, to be one of the best arguments in its favour. No one considers it worth while to refute the assertions of a notorious quack; but when there is a lurking consciousness of the truth of a new discovery, then it is that all the wit and talent that can be mustered are employed in its demolition. On the continent the practical advance made by Homœopathy is great, and its opponents have long been strong and active; in England the system is but little known, save by the profession, and to them often only by name; and only one weekly medical journal has as yet vented its petty spleen on the subject. As the doctrine advances in public favour it will be successively attacked by the higher periodicals. But let us now glance at our author's work.

Dr. Simpson's book is divided into three parts—homœopathic principle, homœopathic practice, and homœopathic materia medica; a few extracts from each may be useful. The grand principle of Homœopathy is, *similia similibus curantur*, and that specifics which, in large doses, would excite a disease in a healthy person, cure the same malady in a sick individual. Thus—

“The purgative power of rhubarb, in large doses, is universally known; in smaller doses it is not less efficient in checking certain forms of diarrhœa. Opium, which, in large doses, constipates the bowels, is recommended by many excellent practitioners as a most efficient remedy in ileus and incarcerated hernia. Its power as an intoxicating and stupifying remedy is not less certain; while in the comatose state of acute fevers, in small doses, it relieves the symptoms like a charm. Arsenic produces shivering, dryness of the throat, excessive thirst, twitching of the tendons, palpitations, a small, quick, and feverish pulse, sometimes eruptions of the skin, vertigo, coma, and convulsions; and it is also a powerful remedy in intermittents, attended with nervous symptoms and great prostration of strength. A remarkable case is mentioned by Rau of a young lady who, from a peculiar irritability of the skin and great susceptibility of cold, was subject to a nettle-rash, which never failed to return at short intervals, but which as certainly gave way upon her partaking of craw-fish, and did not return as long as these were to be had. Craw-fish are well known to excite a similar eruption in many individuals, and hence, in all probability, their action in this case was homœopathic, though not sufficiently powerful to eradicate a disease so deeply rooted in the organism.”

The asertion made by some, that the homœopathic doctrine is not novel, can never detract from the merit of Hahnemann. It was, indeed, obscurely hinted at so long ago as the days of Paracelsus, and by a few authors since that date; but to Hahnemann alone belongs the transcendent merit of having first *applied* the principle. There are, moreover, numerous instances on record of physicians, who had practised the old method thirty years and upwards with success, renouncing their former views, and publicly acknowledging their belief in Homœopathy.

One great merit of Dr. Simpson's treatise is the calmness and im-



partiality with which he discusses the whole matter. He is bigotted to no one master or theory, but reasons for himself; rejects that which appears to him not founded on truth, and adopts whatever he considers sound, whencesoever it may proceed. He also makes an admirable distinction between the grand principle on which the system rests, and the theories of even its most enlightened advocates. Thus, he observes—

“As to the merits or demerits of the above speculations future observations must decide; in the mean time let us not forget that, whether true or false, the facts of Homœopathy are altogether independent of them, being the result of experiments, of the truth of which any candid inquirer may convince himself.”

Dr. S. further admits that, in the present state of our knowledge, antipathic remedies, and even bleeding, are still *occasionally* required; and the volume does not contain a single observation tending to detract from the merits of the old school.

“There is, however, a class of diseases in which the use of antipathic remedies is altogether indispensable, namely, where there is a prostration of the vital powers; here the susceptibility for homœopathic medicines is often altogether extinguished, and can only be restored by the use of such antipathic remedies as are adapted to the peculiar nature of the case. Whilst, therefore, we reject the exaggeration of Hahnemann, when he says that by means of the above methods no radical cure was ever effected, we must admit their application to be of a very limited nature, and their injudicious adoption to be frequently followed by very injurious effects. Still they are both occasionally of essential service in the palliation of symptoms, both in acute and chronic diseases, and at times are even alone sufficient to effect a permanent cure.”

*Confirmation of the Homœopathic Doctrine by an Opponent.*—“Professor Jörg, of Leipsic, having undertaken a series of experiments with the view of disproving that doctrine, ends by warning practitioners of the danger of using nitre in inflammations, assafœtida in hysteria and hypochondriasis, and prussic acid in inflammatory affections of the larynx and bronchia, because, in his experiments upon healthy individuals, these substances had produced very similar diseases. He further expresses his astonishment at finding results so contrary to received opinions, and states that, as far as his experiments have yet gone, he has scarcely met with a remedy the real properties of which are known. The most remarkable point in these experiments, however, is that, though conducted in the most practical manner, the learned professor cannot see that they all tend to confirm the very system they were meant to destroy.”

*Small Doses.*—Many, both of the opponents and advocates of the system, “seem to dwell upon the incredible smallness of the dose as the essence of the system, and the touchstone of its merit; and exhaust their imagination in the attack and defence of this unimportant point, which has, in reality, nothing to do with the marrow of the question. The principle of Homœopathy had been promulgated, the system had been named from this principle, and had already approached maturity, before the discovery of the atomic powers of medicine not only spread terror and dismay among the adherents of the old system, threatening the apothecaries especially with utter annihilation, but laid the foundation for many of the errors and absurdities which have since so seriously impeded its progress. And yet this discovery of Hahnemann is not only absolutely certain, but in its results will, in all pro-

bability, ultimately prove one of the most important in the annals of medicine."

Hahnemann's discovery of the atomic power of medicine was the result of no speculation, but of practice, he having been induced gradually to decrease the doses on account of the too violent effects which were the result of the large doses.

"It is for those, therefore, who doubt the possibility of such minute doses as the hundredth, thousandth, millionth, and even decillionth part of a grain of any medicine producing effects when administered homœopathically in disease, to retrace the steps of Hahnemann."

*Homœopathy demonstrated to be true by facts.*—"The system of Hahnemann as such, would long since have ceased to exist, had not the application of his method to the treatment of disease been followed by such successful results as to have obtained for it the suffrages of the public, and hence too at length to have attracted the attention of the profession. Since the homœopathic principle was not discovered by the way of speculation, but solely by that of experiment, out of which the theoretical side of Homœopathy has since been developed; so all attempts to disprove it by theoretical arguments must be altogether unavailing." Further,—"It may fairly be asserted, that the rapid advancement of Homœopathy within the last ten years is almost entirely due to the scientific cultivation of it by practitioners bred up in the old school."

Dr. Simpson has the following observations in his chapter on diet (to which the homœopaths pay the strictest attention), in the truth of which we entirely concur:—

"The length to which the use of strong wine, cayenne pepper, and other powerful excitants has been carried in England, calls loudly for reform, as it is, probably, the cause of one half of the dyspepsies with which the English are plagued. With this exception, the English diet in general, and the cooking in particular, is superior to that of any nation in Europe, as, beyond all others, it fulfils the great objects of the art—to present the food in the most digestible, most nutritive, and most sapid form."

We are next presented with thirty-two extremely interesting and satisfactory cases, homœopathically treated, mostly extracted from German works, but one from our author's own practice. One of these cases was commenced by a physician of the old school; but when all hopes of the recovery of the patient were abandoned by Dr. Krämer, he reluctantly, and as a last resource, permitted Dr. Siegel, "an experienced physician of upwards of fifty years standing, but who for the last two years had adopted the new method," to prescribe for the young lady. "To the astonishment of Dr. K., the patient the ensuing morning—the eighth day of the disease—was much better. During the day, the patient took a few more doses of aconite, and the following morning seemed altogether freed from her dangerous disease." The convalescence of the lady was, however, slow, on account of her extreme debility. In the fourth week of her convalescence, she was imprudently exposed to a current of cold air, and was again attacked by her former complaint.

At the earnest entreaty of the patient and her friends, Dr. K. was induced to administer the remedy previously prescribed by Dr. Siegel. In half an hour a quiet sleep came on, and in three hours the patient awoke refreshed and relieved from all symptoms of disease. She had no further relapse. After the first cure by Siegel, Krämer, then a practitioner of forty years standing in the allopathic method, refused to admit that the eradication of the disease was owing to the homœopathic remedies: but the termination of the case—for the details of which we must refer to the work itself—"was the means of entirely changing Dr. Krämer's views in regard to the worth of Homœopathy, which he has since practised with increasing confidence and success."

In conclusion, we must confer the most unqualified praise on the manner in which Dr. Simpson has executed his task. The volume is not too long, or too dry and technical to fatigue any reader; the style is simple, modest, unaffected, and well suited to the subject; the author maintains his temper throughout, does justice to every class of practitioners, of whatever sect, commends where commendation is due, and never fails to expose the absurdities and exaggerations of even the homœopaths, wherever they occur. He gives the results of the labours of others, confirmed by his own experience; and we think that the system is here proved beyond a doubt to be of such incalculable benefit to the human race, that no one, having given the book an impartial perusal, and who was not blinded by prejudice, would again trust his health and his life in the hands of an allopathic doctor, when so infinitely less tedious, irksome, and expensive a means of cure is at hand. The volume concludes with a long list of works and periodicals, published on the continent, for and against the system. The doctrine appears to be rapidly gaining ground in Germany, and we understand that Paris boasts of a Homœopathic Society, consisting of thirty physicians practising according to the improved method. Its slow progress in England is chiefly to be attributed to the hitherto too successful opposition of the profession, and to the blind reliance of individuals and families on the interested verdict of their doctor. There are, however, several physicians practising Homœopathy in England; and it is sincerely to be hoped that the *Practical View* of Dr. Simpson will set the matter in its proper light, and induce the public to make a trial of the system vainly attempted to be repressed by the practitioners of the old school. We fearlessly predict, that, in the end, full justice will be done to Hahnemann's discovery; and that when the public begin to perceive the importance of the doctrine, the profession will find it their interest speedily to free themselves from their trammels, and adopt the views of their employers. We ask our medical readers to institute an impartial investigation of the homœopathic principles, and either to publish any facts in refutation of them, or else to adopt them before they are *compelled* to do so; and they may rest assured that, sooner or later, the matter will come to this crisis.

*Homœopathy Examined*; or Homœopathy in Theory, Allopathy in Practice. By Robert Verity, M.D., Member of the Universities of Edinburgh and Göttingen. Paris: Galignani & Co. 1836. 8vo., pp. 24.

IN this pamphlet of twenty-four pages, *Dr. Verity* has doubtless pleased himself with the idea that he has been seeking after *truth*; but since he has taken a distorted view of the subject, and has evidently no practical knowledge of the theory, his twenty-four pages go for nothing. Although *Dr. Verity* scarcely deserves the honour, we will briefly undertake to refute a few of the erroneous notions he has imbibed. He says—

“The first fundamental proposition whence Homœopathy derives its name, and to which the others are appended as convenient corollaries—*similia similibus curantur*—requires only a fair exposition to be refuted as paradoxical and logically absurd. For if similar qualities of action be added to each other there must consequently ensue aggravation, and not annihilation, of disease.”

This is mere assumption, as the author does not speak from experience. But the effect he reprobates is the very thing the disciples of Hahnemann wish; and the result of aggravating the disease for a time is precisely the same as the result of introducing a current of air into a stove, namely, that the flame is sooner extinguished. This exacerbation is, however, by no means a necessary effect of homœopathic remedies. To proceed:—

“The practice of homœopathy in the exhibition of infinitesimal doses (the last link of the theory) is so thoroughly a deduction from the preceding assumptions, that this rare-facted absurdity may safely be consigned, without any further notice, to share the fate of their condemnation.”

Now *Dr. V.* has only very slightly touched upon the “preceding assumptions,” without any attempt at refuting them; to declare a thing to be absurd because it is a deduction from such assumptions is, therefore, manifestly irrational. But it happens, unluckily for the Doctor’s argument, that the size of the dose, whether large or small, leaves the grand principle of the theory—*similia similibus curantur*—wholly untouched; indeed, Hahnemann practised his method for a considerable time before he discovered the atomic powers of medicine homœopathically prepared. The writer next devotes three pages to the demonstration of the ignorance of the homœopathists of existing knowledge. This supposition on the part of the pamphleteer can alone proceed from ignorance the most culpable of the history of Homœopathy. Is he not aware that by far the greater number of enlightened advocates of the new doctrine have previously served a long apprenticeship in the old school? that some have been eminent as allopathic practitioners for forty years and upwards? and that others, again, having instituted an investigation in the subject, with a view of refuting its errors, have ended

by ranking themselves amongst the most enlightened disciples of Homœopathy?

Dr. V.'s assertion, that persons of a highly nervous and excitable system are alone fitted to become the patients of the homœopathists, strengthens our opinion of his want of knowledge of the subject. Let him cast his eye over any miscellaneous cases homœopathically treated, and if he be really searching after truth he will alter his opinion. Were homœopathy to prove inapplicable to any one class of diseases or constitutions, the discovery would be of comparatively small value. But we have already occupied too much space with Dr. Verity and his pamphlet. Let him investigate the doctrine carefully and impartially, let him make a practical trial of it; and if he possesses ordinary skill and knowledge, we are very much mistaken if we do not give him a much more favourable reception on his next appearance before our tribunal.

*A History of British Quadrupeds.* By Thomas Bell, F.R.S., F.L.S., Lecturer on Comparative Anatomy at Guy's Hospital. Illustrated by a Wood-cut of each species and numerous Vignettes. 8vo. Parts 3 to 6. London: Van Voorst. 1836.

WE regard the progress of this beautiful work with the highest interest; and whether the scientific details, the clear, skilful, and popular manner with which the descriptive materials are worked up be regarded, or attention given to the decorative department—the wood-cuts, the vignettes, and the typography—both the general reader and the naturalist will find abundant materials for the highest gratification. The history of the Mole (*Talpa vulgaris*, Bell) we consider the *chef d'œuvre* of the work, as far as it has yet appeared—full of acute research, interesting facts, and economical details, worthy of the highest commendation. So that we can most sincerely use Hamlet's language in reference to this article:—

“Well said, old Mole, canst work in the earth  
So fast? *A worthy pioneer!*”

We shall, therefore, at present, prefer tunnelling a little, in company with our friend the Mole, to taking a mere Marten-like skip among the various animals so agreeably introduced to us by Mr. Bell. The Mole is so well known from the manifestations of its existence which it presents to view in almost every field, that a correct notice of its habits and economy cannot fail to be interesting, more especially to those who may feel uncertain whether to preserve or destroy it, since, like most other inhabitants of this terraqueous globe, it has had both advocates and enemies, though, unfortunately for its happiness, the latter have greatly outnumbered the former. Instead of taking the gloomy view of things common to thoughtless individuals, that because the Mole lives under ground it must of necessity endure nothing but misery in its damp and

dreary habitation, Mr. Bell justly shews that its manners and habits being expressly adapted for a subterranean existence, it enjoys as much happiness in the under ground tunnels it has constructed as any animal sporting in the glare of day, and doubtless subject to much less molestation.

“The one prominent circumstance which strikes us on looking either at the habits or structure of the Mole, is, that labour—almost incessant labour—is its necessary doom. Its feeding and its habitation, its wanderings and its repose, its winter retreat, and the nest in which its young are brought forth and nourished, are all so many calls for the most laborious and enduring toil: but, on the other hand, that toil is so amply provided for in the whole structure of the animal—so exactly balanced by the strength and conformation of its limbs, that it cannot be considered as exceeding the healthful and even pleasurable exercise of its natural powers.”

The existence of the organ of vision in the “blind Mole” has been frequently a subject of dispute with physiologists, especially from the confident assertion of Aristotle and other naturalists, that it was totally sightless, while *our* Mole, at any rate, was found to have *open eye-lids*, which seemed to argue that some little light might be occasionally conveyed to his optic nerve. But it now appears that another species of Mole, with the *eye-lids totally closed*,\* is common in the south of Europe, and this kind Mr. Bell thinks was the one examined by Aristotle. Although, however, the organ of vision in the Mole appears in its most diminished form, it appears that his hearing is very good, although devoid of any external conch; but it must be confessed the amusing experiment recorded to prove this might be considered sufficient to rouse the dead, to say nothing of startling our little velvet-coated friend. We shall extract it as given by Mr. Bell, first premising that the Mole has always a regular “high road” extending from his “fortress,” or domicile, to the extremity of his property; for it appears that each Mole is lord of a little manor of his own, where the game is strictly preserved, and no trespassers allowed to sport. From this “high road” lateral alleys diverge to the “hunting grounds,” and mole-hills are principally thrown up above these alleys, marking the sporting excursions of the Mole. As the Mole always goes from and returns to his habitation by the high road, mole-catchers are obliged to ascertain its direction before they can intercept him by their traps placed in its course.

“The swiftness with which the Mole will traverse its domain by means of this principal road, was made the subject of an amusing and satisfactory experiment by Le Court, [a Frenchman, who devoted his entire attention to the extermination of Moles]. Having ascertained the exact direction of the road, and finding that the Mole was engaged in exploring for its food the ground at the farthest extremity from the fortress, he placed along its course, at certain distances, several pieces of straw, one extremity of which penetrated within the passage, and to the other end was fixed a little flag of pa-

\* *Talpa cæca*, not yet discovered in Britain.

per. He also introduced into the passage near the end, a horn, with the mouth-piece standing out of the ground. Then, waiting till he was sure of the Mole's presence at that part of the road, he blew into the horn, to use the words of Geoffroy, '*un cri effroyable*,' when, in a moment, the little flags were successively thrown off as the Mole, in its rapid course towards its fortress, came in contact with the interior extremities of the straws: and the spectators of this neat and demonstrative experiment affirm that the speed of the frightened Mole was *equal to that of a horse at full trot*."—p. 95.

Such an infernal noise within so confined a space was surely enough to have frightened all the Moles for miles round! The Mole, however, makes no attempt at such extraordinary speed when surprised above ground, feeling himself out of his element, and remaining passive, as we have witnessed, till taken. This may, perhaps, arise from the glare of day being too much for him, as, below deck, he in reality turns day into night, working diligently by night and in the early morning hours, and sleeping profoundly during the greatest part of the day.

We have often been struck by perceiving numerous fresh-turned mole-hills in places entirely surrounded with water, but it appears that this is to be accounted for by our friend's swimming propensities; for a friend of Mr. Bell assures him "he has seen Moles swimming very featly when the marshes in that neighbourhood have been inundated." Mr. Bell has given the provincial name of "Want" as applied to the Mole, but though this may be, perhaps, orthographically correct, in the midland counties it is commonly called "*Oont*," the double *o* being pronounced as in moon. There is no British animal whose movements so certainly indicate a change of weather as the Mole, though this fact is no otherwise indicated by Mr. Bell than by the remark that "in the winter, when the frost has penetrated deeply into the soil, and the ordinary hunting grounds are rendered useless and impracticable, it descends to a considerable depth by a perpendicular shaft, till it arrives at the part to which the earth-worms have been driven by the cold." When, however, the frost is about to break up, and previous to a single atmospheric demonstration of it, a fresh-turned mole-hill will always irrefragably prove that the northern tyrant is gone off, leaving his camp, equipage, and icy *materiel* behind. The same appearance presages rain. Mr. Bell does not say what altitude the Mole attains in his peregrinations, which it would be curious to ascertain, as we have noticed him at nearly two thousand feet, and very likely he may advance higher. The Mole is found in every kind of soil throughout England and the continent of Europe, but not in the islands of Orkney, Shetland, or Ireland, for which as yet no satisfactory solution has been given. Deep-rooted prejudice among farmers is the cause of annual destruction to multitudes of Moles, but, his aliment being almost entirely worms, we confess we should consider him as very little to be regarded as an enemy, except in gardens.

We have dwelt at some length upon the Mole because, in doing so, we consider ourselves as passing the highest praise upon Mr.

Bell's work, which must be in the hands of every European faunist. The wood engravings are, above all praise, characteristic and highly finished ; we can scarcely particularize, but the Urchul, the Oont, and the Fitchet, as well as the Wild Cat, Blood-hound, and Fox-hound, are truly admirable. Poor Puss is not quite to our liking, and Reynard does not come out of cover sufficiently :—his history, we fear, in the eye of the sportsman, will seem sadly curtailed. The vignettes—we mean the *speaking ones*—though beautiful, want a little more force. The bridge and water, at page 118, is a sweet scene, and the badger-baiting and mole-catcher are good, but the *dramatis personæ* of the former are all cocknies. The horse drinking, at page 147 ; the old fellow asleep in the sunshine while his cat and dog seize on the relics of his dinner, page 206 ; and the dog's-meat man, p. 246 ; are all to the purpose, and truly adorn as well as illustrate. We can sincerely say that the British quadrupeds never before were fortunate enough to meet with so able an historian or scientific illustrator as Mr. Bell. We shall look forward with increased anxiety to every forthcoming part of this highly interesting work.

*Report of the Committee of the Birmingham Philosophical Institution*, for 1836 ; with the *Meteorological Journal*, a statement of the Steam Power employed in Birmingham from 1780 to 1835, and Tables of the Mortality of the Borough from 1831 to 1835. Birmingham : Belcher & Son.

THE pamphlet before us contains the rules of the society, the names of the officers and members, and the other subjects specified in the title-page. The report appears satisfactory, but we shall, at present, confine our attention to the steam power and the mortality of the borough. The following is a condensed account of the number and power of the engines now in use :—for grinding flour, 275 horse power ; working metals, 1770 ditto ; pumping water, 279 ditto ; glass grinding, 87 ditto ; working wood, 97 ditto ; paper making and glazing, 44 ditto ; grinding clay, 37 ditto ; grinding colours and chemicals, 61 ditto ; sundries, 50 ditto ; so that the horse power of the number of steam engines (169) now at work in Birmingham is 2700. We now give the mortality of the borough from 1831–5 :—Total number of deaths in 1831, 4442 ; in 1832, 3622 ; in 1833, 4256 ; in 1834, 4209 ; in 1835, 3861 ; making the total number of burials in the years 1831–5 (with the addition of 28 Jews) 20,418. The tables in this *Report* are as numerous as they are minute and ingenious ; but, in order to save room, as well as to render the subject intelligible to the generality of readers, we have only given the totals of the various calculations. On the meteorological tables we will not at present comment, leaving the pamphlet to the discussion of those who may feel a desire to possess themselves of the *Report* itself.



*The Cheltenham Annuaire*, for 1837. London: Simpkin, Marshall, & Co.—Cheltenham: H. Davies. pp. 173.

THE *Cheltenham Annuaire* ranks very far above the generality of the local publications so frequently issued with a similar aim. Excellent, however, as we willingly pronounce it to be in every department, we are only able to give our readers a list of its contents, which are as follows:—Notice of the Cheltenham Literary and Philosophical Institution; on the Fossil Zoology of Cheltenham; Meteorology, by the Rev. Dr. Ritchie, F.R.S.; Sketch of the Principles of Railway Communication, &c., by Captain Moorsom; On the Application of Monastic Architecture to Modern Mansions, with a Description of Toddington Hall, the seat of C. Hanbury Tracy, Esq., M.P., by J. Britton, F.S.A.; Notes on the Climate of Cheltenham; Chronological Notices of Cheltenham; Preliminary Notes of the Year, &c. &c. The Editor has evidently bestowed great pains on the publication; and the *Annuaire* of this fashionable town altogether forms a most interesting and useful little volume.

*Works of Lord Byron*. New Edition. Childe Harold's Pilgrimage, and The Byron Tales. Vols. I. II. and III. London: John Murray. 18mo. 1837.

Here we have the commencement of a cheap and extremely beautiful edition of the works of this delightful poet (to be completed in ten monthly volumes), which we earnestly recommend to the admirers of that immortal bard. The first volume contains Childe Harold; the second the Giaour, the Bride of Abydos, the Corsair, and Lara; the third, Siege of Corinth, Parisina, Prisoner of Chillon, Beppo, Mazeppa, and The Island. This edition is published in divisions, each complete in itself, and is enriched with the Notes of the noble author, and the criticisms and opinions of the most able writers, collated by Mr. Lockhart. The work is illustrated with plates, exquisitely engraved, of Lord Byron, View of the Lake of Geneva, Mount Parnassus, and the Acrocorinthus.

*Magazine of Zoology and Botany*. Conducted by Sir W. Jardine, Bart., P. J. Selby, Esq., and Dr. Johnston. Feb., 1837., No. V. Edinburgh: Lizars—London: Highley.

It is with much pleasure we notice the rapid improvement evinced in this scientific periodical. The fifth number is by far the best which has appeared; the articles are, without exception, highly interesting and valuable; the invidious task, therefore, of drawing the attention of our readers to any particular paper is unnecessary. Some of the subjects are illustrated by spirited wood-cuts and highly-finished steel engravings.

## FINE ARTS.

## MUSIC.—VOCAL.

*The Crucifixion*, an Oratorio, by Louis Spohr ; the English version, by Edward Taylor. London : Cramer & Co.

SPOHR's genius is not fitted for the Oratorio. It is wanting in the power, the dignity, the nerve, so remarkably characteristic of the sacred works of Handel, Bach, Graun, and Beethoven. While listening to the *Last Judgment*, or the *Crucifixion*, you admire, but do not venerate ; on the contrary, your admiration of the *Messiah* of Handel, or the *Passionsmusik* of Bach, is well nigh swallowed up in veneration for their gigantic genius, and in wonder at the almost unlimited controul they possess over your feelings. Had we the requisite space, it would be interesting to compare this oratorio, not with the *Last Judgment*, but with the master-pieces of the great composers above-named, in order the more clearly to point out the comparative littleness of the first. We say *comparative*, because, although this oratorio, as such, is a failure, yet there are parts of it, which, if not brought to this standard, but judged of by their intrinsic merits as music, must, we think, extort praise from the most censorious. We may instance the opening chorus of disciples, which is soft and beautiful as a serenade ; also the song and chorus, " Though all thy friends prove faithless," which is very pretty, but far too light for the subject. The air sung by Peter, after he has denied the Saviour, is a masterpiece of its kind, and admirably expressive of the grief and contrition conveyed by the words—" he went out and wept bitterly." The song of Judas Iscariot is equally fine in another style. The trial scene is not at all to our taste. The subject is the least possible adapted for music ; and what interest can there be in those long recitatives of the disciples—in the evidence of the witnesses given in triplets—in the ruthless yells of the priests and the rabble, calling out for the crucifixion of the Saviour ? All these should be kept behind the scenes—they merely disgust by being brought into view. It is unnecessary to point out any more of the beauties or defects of this work ; it is well worthy the study, though not the imitation, of every musician. On the whole, Mr. Taylor richly deserves the thanks of the musical world for this performance.

1. *I Contadini di Siena*, Duet for Soprano and Contralto, arranged from an Italian national melody, by Gabussi.—2. *Quando Canti la Sera*, Serenata, by Dessauer. T. Boosey.

No. 1. In spite of certain crudities in the composition, the beauty of the melody can hardly fail to render this duet popular.—No. 2.

Simple, beautiful, and touching. We cordially recommend it to all lovers of melody—pure melody, as opposed to that extravagantly ornate style, now so much the fashion.

1. *Sappho to her Mother*, by C. E. Horn.—2. *Spohr's Cradle Song*, The words by W. Bartholomew, Esq.—3. *The Star Spirit*, Cavatina, by S. Nelson.—4. *Dearer than Life thou art*, Ballad, by the author of "Welcome me Home."—5. *Good bye, Sweete Heart*, in imitation of the ballads of the 15th century, by R. F. Williams; the music by S. Nelson.—6. *O! weep not, Mother*, prize Ballad, composed by J. W. Hobbs. London: T. E. Purday, 50, St. Paul's Church-yard.

No. 1. One of the few songs by Charles Horn, of which we are compelled, unwillingly we own, to say—"stale, flat, and unprofitable."

No. 2. Compare this little gem with the *Sleep on* of Neukomm, and you will readily perceive the difference between the real musician and the charlatan. Spohr, when he wishes to represent a mother singing her baby to sleep, does not, like the renowned Chevalier, produce a song far more calculated to have an opposite effect, but one which breathes the very spirit of peaceful slumber and motherly love. This is the test of a true musician, to adapt himself to, and body forth in his music the very images presented to him by the poet.

No. 3. Neither very bad nor very good. It is the representative of a large class of compositions of the present day—compositions which would never have seen the light, had they not appeared an eligible means of procuring the *summum bonum* of the nineteenth century—*money*.

No. 4. It is difficult to determine which is the most edifying, the music or the words of this ballad. Only listen—

Dearer than life thou art, can I say more?  
True I have told thee so, often before:  
*But of thy apathy still I complain,*  
Therefore I tell it thee over again. &c.

The song is worth procuring, were it only for the setting of the line we have put in Italics. The "apathy" is certainly made the most of. In brief, a more slovenly composition we never saw.

No. 5. What absurd affectation to call it an imitation of the ballads of the 15th century. The only imitation is in the spelling; the rest is as modern as the music, and as worthless too.

No. 6. This being the second prize Mr. Hobbs has obtained, would seem to indicate that he knows, and has accommodated himself to the taste of the "Melodists' Society." The present composition, however, is deserving of a still higher prize, which we doubt not it will obtain—the approbation of the public.

1. *Six Duets in Canon for two Sopranos.* 2. *Songs of Remembrance.* Both by Miss Mounsey. London: T. E. Purday.

To each of these publications we feel pleasure in giving unqualified approbation. The songs in canon are excellently adapted for preparing the taste, no less than the voice, of the pupil to execute and appreciate the concerted pieces of classical composers. Miss Mounsey has herself drank deep of the pure fountain of classical music, and wishes her pupils to possess the same advantage. This is as it should be, and until it is universally the case we shall in vain look for improvement in the public taste commensurate with the "march of intellect" in other matters. The *Songs of Remembrance* have a freshness and originality no less pleasing than rare in these days, when every one, however weak his talents, seems to think that the mantle of inspiration has fallen upon him, and that the public will hear *him*, if it will listen to no one else. The "Song of the Summer Winds" is a perfect gem, and leaves nothing to desire, either on the score of beauty or originality. The "Will-o'-the-Wisp" is our next favourite, and in its manner rather reminds us of Purcell, with whose works Miss M. is doubtless familiar. But we have not space to enumerate the beauties of these songs, and must, therefore, conclude by recommending this publication to our musical readers, as a proof that the musical ability of the fair sex is not confined to the production of such trash as the *Treasures of the Deep*, or the *Greek Exile*.

#### INSTRUMENTAL.

1. *Deux Rondinos, sur les Thèmes favoris de l'Opera l'Elisir d'Amore*, pour le piano, par W. Plachy. 2. *L'Aurore Boréale*; Première Suite de Contredanses brillantes et variées, par R. Nordmann.—Boosey. 3. *Fantasia for the Piano*, with variations on the favourite glee "Glorious Apollo." By Philip Klitz. Purday.

No. 1. The admirers of Donizetti and his school will doubtless be pleased with these rondinos, containing, it appears, the cream of his operas, and being at the same time brilliant and playable. We prefer the first.

No. 2. The northern lights set to music by Herr Nordmann! who certainly does very right to inform us when he means to represent the sky, and when the lightening, &c., for we should otherwise never have discovered which was which; as it is, we take it all upon trust, though we think none need fear the effects of *his* lightening. As dance-music *l'Aurore Boréale* is spirited and pleasing.

No. 3. Though Mr. Klitz be not quite so expert at writing variations to an air as Haydn (who has left us several specimens of this kind which prove him to have been the greatest master of the art

that ever existed), he is yet not an unskilful composer, and in the present instance he has managed to make much of rather an unpromising theme.

1. *Capriccio for the Piano*, intended as a study for the right hand.—Purday. 2. *Le Départ pour Munich*; Rondo varié, for the Piano, by the same. London: Paine and Hopkins.

THE character of both these pieces is the same. They are intended rather as studies than as *pièces de concert*, and, considered in this light, are excellent.

*The Violin.* By George Dubourg. London: Colburn. 1836. 12mo., pp. 276.

WE have here an amusing and, in some measure, instructive little volume, giving an account of the origin of the violin—a short biographical notice of its most eminent professors, from the time when it was first employed as a solo instrument to the present day—a chapter on amateurs, but too descriptive, we fear, of that class—and anecdotes and puns without end. Indeed, it appears to be Mr. Dubourg's decided opinion that the bitter pill of instruction is easiest swallowed when gilded with the tinsel of amusement; and he is right for all we know to the contrary. The volume is enriched with numerous spirited wood-cuts.

*Zephyr et l'Amour*, Volses brillantes, composées pour le piano forte, par Adolph Marschan. London: T. Boosey.

WE are not of those who despise a waltz merely because it is a waltz, and think themselves mighty wise because they are above a quadrille. When cleverly treated and kept to its proper sphere this kind of music is not unworthy the cultivation of the scientific musician. That Mr. Marschan is of this class appears evident from the very pleasing composition before us, which displays, in a degree too rare in music of this description, excellence of modulation combined with elegance of melody. We cordially recommend it to all lovers of the intoxicating whirl, and of music, its enchanting accompaniment.

## CORRESPONDENCE.

## ON THE DEPOSITS OF SUPERFICIAL GRAVEL IN THE COUNTIES OF CHESTER, STAFFORD, WORCESTER, AND WARWICK.

TO THE EDITORS OF "THE ANALYST."

GENTLEMEN,

I AM desirous of submitting a few queries to such of your geological readers as reside in the midland counties. The deposits of superficial gravel, sand, and clay in that part of England are now beginning to attract the attention they deserve; and the researches of Mr. Murchison have thrown a new light on these accumulations of drifted matter. He has shewn that the vast deposits of gravel which are scattered over Cheshire, Staffordshire, and Worcestershire, are of marine origin, and contain sea-shells of existing species. My own observations on the subject lead to the conclusion that these beds of erratic gravel may be divided into two classes—the *marine drift* of Mr. Murchison, and *ancient fluvial drift*, consisting of the same materials as the former, but modified by the action of rivers after the midland counties became dry land. The former class of deposits are scattered indiscriminately over the surface, and occur on the summits of considerable hills. They consist of rolled fragments of various rocks, commonly mixed in confusion, with little or no appearance of stratification. The *fluvial drift*, on the contrary, is in general finely stratified, denoting a more tranquil action of flowing water. It is found in the vicinity of existing streams, forming low platforms rarely exceeding fifty or sixty feet above the present drainage level. In the latter situations, the bones of Hippopotami, Elephants, and other extinct *Mammalia* frequently occur, and are occasionally accompanied by land and freshwater shells. But I have not been able to learn that either bones or freshwater shells have occurred in deposits referable to the *marine* class of deposits.

My object in now addressing you, is to learn how far these views may be found to hold good in the district in question. I therefore beg to propose the following queries:—

1. Have the bones of Elephants and other extinct *Mammalia*, or freshwater shells, been found in gravel and sand at a distance from existing streams, or at great elevations above those streams, within the counties of Cheshire, Stafford, Worcester, and Warwick?

2. Have not all the fossil bones which have occurred in gravel in the midland counties been found at distances not exceeding a mile from flowing streams, and at heights not exceeding sixty or eighty feet above them?

3. What is the greatest elevation at which the *non-ossiferous* or *marine drift* occurs.

I also take this opportunity of calling attention to the marine shells noticed by Mr. Murchison in the gravel of Staffordshire and Cheshire. These remains have not yet, I believe, been found in Worcestershire or Warwickshire; and it would be highly desirable to establish their existence in the gravel of those counties also.

H. E. S.

ON THE APPLICATION OF BARBAROUS CORRUPTIONS OF  
LATIN WORDS AS ENGLISH NAMES.

TO THE EDITORS OF "THE ANALYST."

GENTLEMEN,

HAVING been prevented from procuring your excellent Journal for January, 1837, until a few days ago, I am almost afraid I shall be too late for your next number, and will only trouble you with a few brief remarks, in the event of a vacant corner. I will not make any observations on the absurd style of orthography adopted by your correspondent, S. D. W., in his Nomenclature of British Fishes, because I trust he will take the hint you have given him, and cease to obscure his valuable labours after so ludicrous a fashion; but I have one or two rather more serious objections to make to his arrangement.

In the first place, where is the utility of applying *barbarous corruptions of Latin words as English names*? Why is Acerine preferable to *Acerina*, Aspidophory to *Aspidophorus*, or Xiphy to *Xiphias*. Where known English names do exist, such as Bullhead, Stickleback, or Angler, nothing can be more beneficial than their adoption into the system; but the degradation of the Latin into uncouth and unrecognized English, appears to me to be an innovation without being an improvement.

Secondly, I wish to know why S. D. W. has given the name *Saurus* to a genus standing in his list between *Belone* and *Exocetus*? The term *Saurus* has already been applied, by Cuvier, to a genus of the *Salmonidae*, which, from their Lizard-like form and voracious habits, almost justify an appellation which is, however, at best but an unfortunate one. But the genus to which S. D. W. has given this name, is, I suppose, from its place in his arrangement, the *Sauris* of Rafinesque, the *Esox Saurus* of Bloch, and for which the term *Scomber-esox*, applied to it by Lacépède, seems particularly appropriate. The common name given to this fish on the coast—Egyptian Herring—is bad, as tending to confound it with genera of the Herring family; but surely no advantage is to be expected from describing it as the Common Saury.

I hope I do not speak harshly on the subject; but I conceive that nothing can be more injurious to that precision and clearness so desirable in systematic arrangements, than the frequent change of generic appellations, or the creation of new genera or species without very substantial and sufficient reasons. Of course I do not apply the latter portion of the remark to your correspondent.

It would be conferring a great favour on many students of Ichthyology, and myself among the number, if any of your correspondents who possess, or are able to procure a sight of, Agassiz's *Poissons Fossiles*, would give, through the medium of *The Analyst*, a synopsis of the classification adopted by the Neufchatel Professor.

D. W. N.

Cheltenham, March 7, 1837.

## MISCELLANEOUS COMMUNICATIONS.

**AUDACITY OF THE SPARROW HAWK, (*Accipiter nisus*).**—In riding, a few mornings ago, through a village in the neighbourhood of Doncaster, a Sparrow Hawk crossed the road within a few inches of my horse's head, and dashed into an adjacent farm-yard, containing large flocks of granivorous birds, and various kinds of poultry. After whisking two or three times round a hay-stack, without any apparent motive, it darted off with that elegance for which the generality of the family are characterized, and was subsequently lost to sight by the intervention of houses, hay-ricks, &c. The Fowls sounded their accustomed alarm-note, and the Pigeons evinced considerable terror at this invasion of their territory; but the motions of the bold depredator are so rapid, and at the same time so noiseless, that the trepidation is excited in a moment, and abates almost immediately the enemy is out of sight. On the same day, towards dusk, I saw a Sparrow Hawk fly off with a Robin Redbreast in his talons, in an orchard, from the opposite side of the hedge to that on which I was standing. A Hedge Dunnock and another Robin Redbreast were hopping about quite close to the scene of action, without exhibiting the slightest apparent alarm. I have noticed this in many other instances; and, whatever the degree of fear may be *before* a victim has been selected and secured, my observations lead me to believe that the remaining portion of the before terrified flock will remain in the immediate neighbourhood of the Hawk whilst he is enjoying his bloody repast.—On one occasion, when walking with a friend, I heard the screams of an unhappy victim to the voracity of this bird; and on approaching the spot from whence it proceeded, the tyrant flew off and was soon out of sight, and was immediately followed by a flock of Redwing Thrushes—the companions of the Sparrow Hawk's prey. In this fact, doubtless, originated the popular error that some species of Hawk habitually live with Partridges.—N. W.

**ARRIVAL OF THE FIELDFARE THRUSH (*Turdus pilaris*) IN 1836.**—I think Mr. Menteath (*Analyst*, vol. v., p. 347) must have mistaken the Missel for the Fieldfare Thrush, a mistake, indeed, I repeatedly find to be made in my own neighbourhood. At the period mentioned (the beginning of September), the Missel Thrushes are frequently seen in flocks of thirty or more together, and their size and appearance, when on the wing, is not unlike that of the other species, though, upon being observed with attention, the peculiar note or chatter of the Fieldfare Thrush will always be found wanting. No Fieldfare Thrushes arrived last autumn upon our coast (the first they make for on their rout from Norway, &c.) before the 22nd or 23rd of October, or nearly a fortnight earlier than the average period of their appearance, which, from long observation, I have found to be between the 5th and 20th of November.—PRIDEAUX J. SELBY, *Twizell House, Northumberland*.

**THE YELLOW-NOSED ALBATROSS A BRITISH BIRD.**—On November 25, 1836, a beautiful specimen of the Yellow-nosed Albatross (*Diomedea chlororhynchus*, Lath.) was observed hovering above the river Trent at Stockwith, near Gainsborough, and was shot nearly opposite the Chesterfield canal basin. Thus, according to the rule generally agreed on by Naturalists, this bird may now be included in the British fauna. There are four species of



Albatross ; the *Diomedea exulans* or Common Albatross (and not the Yellow-nosed species, as erroneously supposed by the newspapers) being the largest.—Eds.

STATISTICS.—At a recent meeting of the Statistical Society of Glasgow, a notice was given, by J. P. Nichol, Esq., Professor of Astronomy in the University of that city—"to move for a committee to collect materials for a statement of the chief kinds of manufacture which foreign nations produce, under present circumstances, at a cheaper rate than is possible in this country ; discriminating in each case whether the superiority of the foreign nation springs from the operation of natural and fixed causes, or from the comparative knowledge, peculiar habits, or economical condition of its people ; and endeavouring to ascertain, in reference to the latter class of causes, how the agencies of an advancing civilization—especially those agencies which alter the proportion of manual labour and fixed capital in the production of commodities—may be expected to remove or diminish our inferiority."—We rejoice to find that an inquiry calculated to produce such important results, is about to be instituted by a society so well able to execute the task. If the committee will favour us with their Report, when published, we will present our readers with an analysis.

A DWARF has lately made his appearance at Paris, who has become an object of interest to the scientific men of that city. He comes from Illyria, not far from Trieste, where he was born of respectable parents, and is called Gulia. The peculiarity of his case is, that, up to the age of five, he was a child of ordinary proportions ; but his growth then suddenly ceased, and he is now, at 22, just the size that he was at that period. His height is exactly three feet ; he was, therefore, not born a dwarf. His figure is beautifully proportioned, and he possesses mind and intelligence not common to other dwarfs. He speaks fluently five languages, the two which are common upon the Adriatic, German, French, and Italian. He is, besides, accomplished, plays the violin, and mounts and manages a horse with considerable grace. The check to his development at the age of five, and his invariable good health ever since, are, however, the circumstances worthy the attention of the physiologist.

SITE OF THE NEST OF THE YELLOW BUNTING, *Emberiza citrinella*.—Syme says that this bird "makes choice of a low bush or hedge (for its nest), though we have seen one in a moist mossy bank above a streamlet, canopied by a plant of Avens." Also—"but the Yellow Bunting rarely builds on the ground."—Rennie says (*Architecture of Birds*) that this is contrary to his observation, and that he has seldom found the nest except on the ground. The situation in which I have generally met with the nest, has been amongst the long grass on old sod fences, which are rather common in the North of England. I never remember to have found it in the bushes of a hedge, though it is often made amongst the tall herbage sometimes allowed to grow at the bottoms of hedges. The Yellow Bunting shows great caution and secretiveness in approaching its nest if any one be near, and will often not attempt to enter for a long time if it supposes itself watched.—W. R. SCOTT, *Doncaster, Feb. 2, 1837*.—[Under peculiar circumstances, the Yellow Bunting will build a few inches above the ground ; but Professor Rennie and our correspondent are quite correct in stating that the nest is usually found on the ground.—Eds.]

**REFORMED EDUCATION.**—The *Monthly Repository* for February contains a very interesting account of Mr. Heldenmaier's school at Worksop, in which the ruling principle is *love* and *respect*, and not, as is usually the case, *fear*. Prizes and punishments are wholly excluded; the classics are not cultivated more than they deserve, things rather than words being aimed at. We have long known Mr. Heldenmaier as a most zealous and able instructor of youth, and recommend all our educational friends to pay a visit to his seminary; we can assure them they will not regret the time thus spent. In the mean while let parents and school-masters peruse the article which we have noticed above, and profit by it. It will prove to them—what probably they never dreamt of before—that instruction may be so imparted as to be equally pleasing to the pupils with their out-of-door recreations.

**CUNNING OF THE DOTTEREL PLOVER** (*Charadrius morinellus*, LINN.)—Having lately read, at page 5 of Mr. Salmon's pamphlet,\* the fact concerning the Dotterel Plover, I may mention a confirmatory incident which occurred to myself thirty years ago. In the height of summer I was ascending, in company with my eldest son and an experienced guide, from Keswick, the conical mountain Red Pike, which rises over the upper end of the Lake of Crummock. We pursued a very steep route, as the shortest. Close to the top we had to clamber up a breast-work of rock, nearly perpendicular, which entirely sheltered us from observation until our heads emerged above it. There we at once found ourselves close to a flock of Dotterels, all of which, except one, instantly flew off to distant places of safety. The lingerer, with which I was almost in contact, immediately dropped its wing, and limped and fluttered before me on its side, like a wounded bird, which I was simple enough thoroughly to believe it to be, and also every moment to imagine, while stooping over it, that I should infallibly pick it up at the next trial. Various fruitless attempts, however, followed. The wily bird always kept just, and but just, out of my reach: and when at length it had drawn off its unsuspecting pursuer to a sufficient distance from its young, which, no doubt, were hidden among the broken and overhanging stones near the spot where we first presented ourselves (and where the guide had been sedulously but unsuccessfully searching for them during the whole of my chase), it suddenly sprang up with expanded wings, and vigorously flew across a valley to an opposite hill. I never was more fully deceived; nor do I ever recall the circumstance without being heartily amused at the cunning of the bird and at my own credulity.—T. GISBORNE, *Yoxall Lodge, Staffordshire*, January 24, 1837.

**SHOOTING STARS.**—The Paris journals state that, during the night of the 13th of November, about one hundred and fifty shooting stars were seen in the heavens; but there were no appearances to sustain the astronomical expectations founded on the American accounts, of thousands of planetary bodies approaching the earth's sphere at this annual period. Shooting stars are usually seen between the 13th and 15th of November.

**QUALIFICATIONS OF TEACHERS.**—When will a knowledge of human nature be deemed an essential qualification of a teacher? In other words, when will he, whose business it is to mould minds and dispositions, be expected to have some acquaintance with the materials he has to deal with?—F. HILL on *National Education*, vol. i., p. 70.

\* *A Catalogue and Account of some of the rarer Birds of Norfolk*, by J. D. Salmon;—printed for private circulation.—EDS.

**PATENT-LAW GRIEVANCE.**—In the March number of the *Magazine of Popular Science*, we find the following observations on the Letters-Patent Law: "The inventors of this country, and the introducers of inventions of other countries into this, were obliged to pay down to the attorney-general and other agents, &c., of the government, during the past year, above £42,000.—What did the attorney-general effect, in return for this vast and oppressive extortion? The penalties inflicted on the inventive genius of Britain during the present year, up to the 25th ult., in the shape of government stamps and fees on patents, amount to more than £6000!" We hope and trust the bill introduced by Mr. Mackinnon and Mr. Baines, "to alter and amend the Patent Laws, and for better securing to individuals the benefit of their Inventions," will this session receive the royal assent. The thanks of scientific men are eminently due to the editor of the very ably conducted Periodical above quoted, for his continued exertions in exposing a system of extortion which is a positive disgrace to the legislature.

**COCK FIGHTING.**—It would appear, by an announcement in the *York Herald*, that the demoralizing sport of Cock fighting is still but too prevalent in this country. Now we do not object to Cock fighting on the score of cruelty to the birds—for, as Mowbray justly observes, they would fight as fiercely were they to meet in a desert, as when surrounded by hundreds of spectators—but for its demoralizing effects, which must produce the worst results to those addicted to such sports. Every country gentleman ought to discourage these barbarities as much as possible in his own neighbourhood; and ought, further, to supply in their stead rational employments, calculated to improve the moral and intellectual faculties of the people.

**THE BRAMBLE FINCH (*Fringilla montana*) IN YORKSHIRE.**—The Bramble Finch has been somewhat abundant in the neighbourhood of Doncaster; we have more than once met with flocks of ten or twelve at Campsall, and according to the observations of others, several have been seen in the same district.

**SONG OF THE GREY WAGTAIL (*Motacilla cinerea*, WILL.).**—In the *Naturalist*, Mr. Neville Wood has recorded the fact that the Grey Wagtail possesses a song. Ardent as I profess to be in the pursuit of Nature, and especially of the habits of our native birds, it may seem strange that I had never previously noticed the song of this amusing little bird; nor, I believe, have other ornithologists had better fortune. Since, however, I have frequently heard and enjoyed its sprightly notes. Even Mr. Wood, at the time that he wrote his interesting and popular volume on *British Song Birds*, was not aware of the circumstance.—N. C. PERCIVAL, M.D., *Leamington*, January 5, 1837.

**THE ACADEMIE DE MÉDECINE OF PARIS AND ITS DECISION ON HOMŒOPATHY.**—We perceive, by the fourth number of the *British and Foreign Medical Review*, for January, 1837, that the French Academy of Medicine (whose verdict on Phrenology is recorded in our last number) has recently been called upon to decide the important question of Homœopathy. The system was denounced as a piece of quackery which ought to be speedily put down. The only comment we shall here make on this decision is contained in this simple query—Had the academicians, previously to the solution of the question, impartially studied the system, either in theory or practice?—  
EDS.

## EXTRACTS FROM FOREIGN JOURNALS.

## ZOOLOGY.

**REMARKABLE INSTANCE OF INTELLIGENCE IN A DOG.**—M. Alph. De Candolle has communicated the following observations on the instinct of animals :—Being last October in the neighbourhood of Aiguesmortes, I had occasion to observe a remarkable instance of intelligence in a Dog. The day was hot, and the season unfavourable, by reason of the trade winds so troublesome on the shores of the Mediterranean. After walking several hours in the desert which separates the town of Aiguesmortes from Camargne, we arrived at a plain where we found, in the midst of a whirlwind, some remains of a shipwreck. Out of three Dogs which had followed our guide, two only accompanied us to this spot. Their black hair attracted the rays of the sun, and the poor creatures, like ourselves, seemed to find the sand somewhat too warm to be pleasant. I sat down on a mat half buried in the sand. One of the Dogs quickly conceived the idea of establishing itself near me. It nestled close to a horizontal plank, by way of procuring a little shade, but finding this insufficient, it hollowed the sand until it came to the part moistened by the sea. It then stretched itself with delight in this fresh and shady bed. There, said I, is an undoubted instance of reason. Had it been instinct, every animal of the same species placed in similar circumstances, would have acted alike. But the other Dog, though of the same race and also weary, knew not what to do ; *it writhed on the hot sand.* One of these Dogs evidently remembered that by hollowing the sand hillocks, a cool and moist part is arrived at, and it applied the reminiscence to this particular case. It may perhaps be said that the Dog which made no burrow, had never been on the plain, and had therefore had no opportunity of ascertaining the coolness of the sand underneath. But this is not probable, since both Dogs had been accustomed to the sea shore. This, again, is another difference between instinct and reason ; instinct acts without previous experience. The Dog of Peccai, the less sagacious of the two, might perhaps one day have learnt to burrow to the cool part of the sand hills.—[From our own observations, we are convinced that M. De Candolle is right, and that many animals, as the Horse, Dog, &c., &c., possess reason—some individuals even in a considerable degree.—Eds.]

**MONOGRAPH ON THE ARVICULES OF LIÈGE.**—The smaller quadrupeds are among the vertebrated animals which present considerable difficulties to the naturalist, in the discrimination of species. M. Selys Longchamps has endeavoured to disembrace the history of the Arvicules ; he has found five species in Belgium, three of which were already known in France and Germany, and the other two are new. The number of Arvicules in central and western Europe amounts, then, to six. Here follows an enumeration of the five Belgian species :—*Arvicola fulvus*, Desm. Length of the body, 3 in. 2l., of the tail, 11l. ; ears scarcely visible.—*A. amphibius*, Desm., (*Mus amphibius*, Linn.). Length of body, 6in. 3l. ; tail, 3in. 4l.—*A. arvalis*, D.S.L. (*Mus*

*arvalis*, Linn.). Length of body, 3in. 9l. ; tail, lin. 1l. ; ears of moderate size. *A. subterraneus*, D.S.L. Body, 2in. 9l. ; tail, lin. 1l. ; ears of moderate size, tail black above, whitish beneath ; eyes very small.—*A. rufescens*, D.S.L. Body, 2in. 9l. ; tail lin. 4½l. ; ears rather large ; tail black above, whitish below ; eyes prominent. This monograph contains four plates, figuring four of the species of the natural size, and giving the heads of two.

A NEW INSTANCE OF A SHOWER OF TOADS.—M. Pontus, a Professor, at Cahors, has communicated to the *Académie des Sciences* of Paris, another instance confirming the truth of the showers of Toads which have already often occupied the attention of the Academy. "In the month of August, 1834," he writes, "I was in the diligence from Alby to Toulouse ; the weather being fine and clear. About four o'clock in the afternoon, three leagues from Toulouse, a dense fog suddenly covered the horizon, and loud peals of thunder were heard. This mist burst upon the road, at about 120 yards (60 toises) from where we were. Two horsemen, returning to Toulouse, whither we were going, and who found themselves exposed to the storm, were obliged to put on their great coats ; but what was their surprise and consternation when they were assailed by a shower of Toads. They quickened their pace, and eagerly pressed forward, as soon as they met the diligence, to relate what had happened. I still saw some small Toads upon their cloaks. When the diligence reached the spot where the fog had burst, we beheld the road, and the fields on both sides, covered with Toads, of which the smallest was at least an inch in length, and the largest about two inches, which led me to suppose they were one or two months old. There were three or four layers super-imposed one above the other. The feet of the horses and the carriage wheels crushed many thousands. On the road thus covered we travelled at least a quarter of an hour, at the usual pace."—*Bib. Univ. de Genève.*

## BOTANY.

NEW FOSSIL PLANTS FOUND IN NORTH AMERICA.—Dr. Harlan has published, at Philadelphia, a thick volume entitled *Medical and Physical Researches*, &c., 1835. This work contains various papers on Medicine, Zoology, &c. We extract the following notes on various species of fossil plants, recently found in the United States :—*Pecopteris obsoleta*. This species bears considerable resemblance to *P. Cistii* of Brongniart, but differs in having the veins of the segments of the leaves slightly, or not at all marked. It occurs in the sandstone of the bituminous strata of coal.

*Pecopteris Milleri*.—*P. Pinnulis obliquis rectis linearibus elongatis vix distinctis nervulis simplicibus valde obliquis*. Found in the same localities as the preceding, and resembles the *P. Beaumontii*, Brong.

*Equisetum stellifolium*.—*E. caule erecto simplici lævi cylindrico, diam. 1-8 pollic. subæquali, ramulis 10-12 ad articulationes caulis verticillatis stelliformibus, articulis vix distinctis superne approximatis, vaginis indistinctis*. Occurs in coal-fields and bituminous earth in Pennsylvania.

*Fucoides Alleghaniensis*.—*F. fronde compressâ rugata apice recurvâ obtusâ, ramis inæqualibus digitatis et fastigiatis enervibus nudatis*. Found in the compact sandstone under the coal formations, on the mountains bordering the river Juniata, near Sesquehanna.

*Fucoides Brongniartii*.—*F. fronde elongatâ subquadrangulâ canaliculatâ transverse rugosâ, ramulis inæqualibus sparsis remotis compressis rugatis recurvis nudis*. Met with in the same localities as the foregoing species, in the western parts of the State of New York, and near the Welland canal in Canada.—*Bibliothèque Universelle de Genève*.

METHODS OF CONVERTING ANNUALS INTO VIVACIOUS AND LIGNEOUS PLANTS; by M. Pépin, principal of the Botanical School of the Paris Museum of Natural History.—Two methods are commonly employed for transforming annuals or biennials into vivacious or woody plants:—1st. By preventing the growth of the seeds; 2nd. By grafting an annual upon a vivacious species. Besides these two modes, M. Pépin mentions a third, of which he records but one example, but which deserves to be studied, as an entirely novel circumstance in Vegetable Physiology, namely, the grafting a vivacious plant upon an annual. Let us review the three methods. The first is that most frequently employed. Annuals and biennials only die from weakness induced by the formation and maturation of the seeds. They have aptly been compared to women who die in child-birth. When no seeds are formed, the flowers are double. Thus the double *Nasturtium* is vivacious, and is produced from slips. M. Pépin has kept plants upwards of twelve years. *Chrysanthemum coronarium* and *Senecio elegans*, become double by cultivation, are equally vivacious. The result is the same when the formation of single flowers is prevented or diminished. Corn lasts as long as the intemperatures, (*intempéries*) or the hand of man prevent it from forming its ears. The *Reseda* becomes ligneous when the lower stalks, and all the flowers developed during the first year, are removed. *Hibiscus vesicarius* and *trionum*, *Anthemis triloba*, *Ageratum cœruleum*, *Cassinia spectabilis*, *Ænothera biennis*, *grandiflora*, *salicifolia*, many *Malva* and *Sida*—all ornamental annuals—become vivacious and more or less ligneous when prevented from flowering at their usual time, or by removing the upper and lower branches. The plants must be housed in winter, as they are natives of a warmer climate than our own. The plan of grafting annuals upon ligneous species is intended to increase the quantity of the sap, in order that they may not be exhausted by the formation of the seeds. Pépin has grafted *Ipomœa purpurea* on *Convolvulus patatas*. He made use of the Red Potato, and grafted on one of its branches at the height of a foot. Since the time of the operation (1831), the Purple Bindweed (*Liseron pourpre*) has put forth several branches, which produced annually abundance of flowers. Kept in a pot, it has almost become woody, and is put every winter into a warm greenhouse. The herbaceous graft, now so successfully employed, furnishes also some remarkable examples. Many annual *Solanaceæ* will live a considerable time when grafted on ligneous species of the same genus, or even upon the stems of Potatoes, provided they are kept in a warm place in winter. The various annual Tobacco plants may be grafted on the *Nicotiana glauca*, that beautiful woody species which grows to a greater height than a man. All grafts answer well—whatever be the cause—in a slip or crown, and can live there a considerable time. It is necessary to suppress the first flowers which appear, and to pull off the ends of the branches developed by the graft, in order to give it vigour and to increase the number of ramifications. If the plants grafted are unable to bear the cold, they should be put into the greenhouse. The neighbouring genera, *Petunia*, *Nierembergia*, &c., grafted on *Nicotiana glauca*, or on *Taba-*

*cum*, become equally vivacious and woody. *Dianthus caryophyllus* and *lignosus*, are very suitable for receiving the graft of annuals or biennials, as *D. sinensis*, *barbatus*, *moschatus*, so common in gardens. The grafted plants should be taken into the house in winter. The Potato, a vivacious plant, has been grafted upon the Purple Bindweed, and has caused the latter to be so far vivacious as to live three years! Its stem has become thicker than a goose-quill. "It was expected by this means," says M. Pépin, "to hasten the flowering of the Potato, which to this day is scarce of flowers; but if experience has not realized this hope, the result is not the less interesting." May we not conclude, from this observation, that the species grafted not having exhausted the subject by the flowering, this has become vivacious, as if it had been prevented from flowering without being grafted? This method, which at first sight appears singular, is, notwithstanding, probably a confirmation of the principle that it is the formation of seeds that kills annuals.—ALPHONSE DE CANDOLLE, in the *Bib. Univers. de Genève*, No. 12.

### GEOLOGY.

ON THE *BASILOSaurus*; A NEW GENUS OF SAURIAN FOSSIL, DISCOVERED IN AMERICA.—The discovery of this species is due to Judge Bree, of Arkansas, who found, in 1834, the first vertebra on the fenny margin of the river Washita. Towards the close of the same year, other vertebræ, fragments of the lower jaw, &c., were discovered at Alabama, thirty miles from Chair-bome. Several immense vertebræ, teeth, ribs, parts of the shoulder, humerus, tibia, &c., have been obtained; and in May, 1835, another skeleton, promising a rich collection of fossil remains, was found. Near it was a vertebra of the tail of the *Mosaurus*, or Crocodile of Maëstricht. All these bones, though differing in their proportions and size, belong to the same species; the structure of the lower jaw, which is hollow, indicates that it is an extinct genus of the Saurian class. The comparatively small size of the bones of the extremities, seems to prove that the tail was the principal organ of motion; the anterior members ought to have been fins. The row of vertebræ, extending to more than 100 feet in one specimen, and estimated at upwards of 150 feet in that of Arkansas, proves this enormous animal to have attained or even exceeded these dimensions; and it well deserves the name it has received—*Basilosaurus*, or King of the Saurians.

### MINERALOGY.

THE PROBABLE ORIGIN OF THE DIAMOND.—Naturalists have proposed hypotheses as to the origin of the diamond which ascribe it to a vegetable, and not a mineral, formation. Jameson attributes it to the vegetable secretion of some patriarchal or antediluvian Baobab or Banyan tree of the world before the flood. Brewster considers the stratum in which it is found as neither the production of water or fire, and the diamond itself, like amber, from its combustibility and its powerful reflective properties, as a consolidation of vegetable matter, which has gradually acquired crystallization. Jameson's view is supported by many remarkable analogies of the formation of silex in various Indian plants, as the formation of lime is known to take place in others. The genus *Chara* is especially rich in the latter as well as the ex-

traordinary group of corallines, which have hence frequently been considered as animals. The formation of silex occurs pre-eminently in Indian grasses, bamboos, and even trees. Dr. Moore observed that within the Circars, as far as Nagpore, consequently within the district watered by the Kistna and Godavery, a species of Jungle grass, with which Dr. Roxburgh was unacquainted, grows in immense quantities upon the mountain heights, in the knots of which a secretion of perfect silex takes place. The *Calamus rotang*, *Equisetum hiemale*, and certain species of bamboo, also produce these secretions of silex, which are better known by the name of Tabaschir, or vegetable opal. The bamboo in which this Tabaschir is secreted, Langford Kennedy observed in great quantities in the wilds of the mountain around Ramguhr, thirty geographical miles to the west of Calcutta, consequently in the vicinity of the sources of the rivers Brahmani and Mahanadi, along which it may also be distributed. This species of Bambas is called at Ramguhr Kutbinbanse—that is, prickly wild bamboo—and the siliceous secretion Banselochum. It is not every plant which produces this secretion; those who seek it shake the stems, and detect it by its rattling within those plants which exceed in their stem two inches and a half in diameter. In the eastern islands it is found in much larger stems, but it is then of a dirty yellow colour. There are two different kinds; the one nearly white, but opaque, and the other resembling opal, but without any polish. The physicians of the Hindoos use it as a medicine, and it costs from eight to ten shillings the pound. Dr. Turnbull Christie observes that this Tabaschir is not found in all parts of India, nor in all the species of the same genus of bamboo, nor even in all the bamboos of the same locality. The secretion of this silex, therefore, may be referred to certain local and individual vegetable peculiarities which stand in a yet unknown connexion with its range of occurrence, like that of the diamond. As long as the bamboo is green the Tabaschir is moist and transparent, analogous to chalcedony in basalt, which becomes opaque by exposure to the air before it can be removed from the fissure. The Tabaschir possesses a similar property to Chalcedony, for by chemical analysis it produces silex. The bamboos are not the only plants which produce silex. The iron-wood, Calumidiri, and others which have been brought from the forests of Ava, are so filled with condensed carbon that they acquire almost the hardness of diamonds, and rather resemble petrifications than succulent vegetables. It therefore becomes probable that many of the so called petrified species of wood have killed themselves by a superabundant secretion of the siliceous matter; whence we may comprehend their wide dispersion in both the deserts of Africa and Asia. Similar concretions of silex have frequently been found in abundance in the hard teak wood, the analysis of which, according to Wollaston, gave silex which appeared to come most closely to the diamond carbon, and seemed to support Jameson's interesting hypothesis of the possibility of a vegetable origin of this jewel, but which, indeed, still requires many experiments and observations to confirm.—*Ritter Erdkunde*, vi., 365.

### MISCELLANEOUS.

VAN MANDER AT FLORENCE.—Two thirds of the fifteenth century—at which period commenced in Belgium the revival of painting by the invention



of oil colours—were already passed. Van Dyck was no more ; but the adopted child of Bruges had achieved enough for his glory and that of his country, by imparting to colours a durability wanting in the works of Athens and of Rome. The centre of a catholic unity, enriched by the spoils of Rome, Italy gathered to itself the pupils of Van Dyck. After receiving instructions from this celebrated painter, Joseph Van Mander, a native of Bruges, travelled to Italy. At Venice the friendship of Dominique fully compensated him for the communication which he made to that artist of his master's discovery ; and at the invitation of his new acquaintance the young painter directed his steps to Florence, there to behold the master-pieces collected by the Medici in their splendid capital. Here Van Mander sent to ask André del Castagno, a distinguished artist of Florence, if it would be agreeable to him to receive a foreign painter, who had a message for him from his friend Dominique of Venice. André was himself the bearer of the reply—"Sir," said he, "the friends of Dominique are my friends, and, moreover, are not all artists brothers?" Van Mander accepted the invitation of the Florentine to take up his abode with him, and the two friends soon arrived at the house of the latter. Van Mander on seeing the works of André, bestowed on them the warmest praise ; but when the Florentine had induced the young Fleming to exhibit his own pictures, he could not restrain his admiration of a *Madeline repentante*, into which Van Mander had thrown all the poesy of a religious soul, and the brilliant colouring so characteristic of the Flemish painters.

"I do not deserve these praises," said Van Mander. "This transparent varnish is not my invention. Its discovery is due to my master, Van Dyck. But what would you say were you to see his *Agneau de l'Apocalypse*?"

"I know not which to admire the most, your talent or your modesty."

"If you please," rejoined Van Mander, "I will impart to you my illustrious master's secret."

"How could I ever repay so great a favour?"

"Did you not say that all artists were brothers?"

And for some time the friends worked together in the studio of André, who had in a short time no reason to envy Van Mander. The Florentine had, however, no pleasure in contemplating that this discovery would place him amongst the best painters of Florence : at times his brow clouded, his eyes became savage, he muttered angrily ; and when the good Van Mander inquired the cause of this alteration, André replied that he had recently been disappointed in love. One night André seemed more than ever occupied with his gloomy thoughts ; and as his companion was unable to please him he went out to walk in the spacious streets and squares of Florence. The moon cast a gigantic shadow on the church of the *Annunziata*, and Van Mander had scarce reached its beautiful door-way, when he felt the icy thrust of a dagger in his breast. He tore the weapon from the wound, and perceived a man in a cloak hurrying off in the shade. Van Mander fell upon the earth. Two men who were passing that way, found him weltering in his blood, and almost exhausted.

"Already a victim," observed one ; "the bullies of Venice have taken up their abode at Florence."

"Only been here eight days," said the other, when he had heard the painter's story, "and thus early a dagger thrust. By the Madona, this is singular."

"Some love affair, probably."

Van Mander was conveyed, by his desire, to the house of the Seigneur del Castagno, who seemed anxious at the absence of his friend. The door opened, and Van Mander was carried in, covered with blood.

"O!" exclaimed André, "what a terrible accident;" and, weeping, he threw himself on the body of the dying man. "Weep not," said Van Mander, "your kindness deprives death of its sting." André appeared so much affected as to be unable to speak. After moistening his parched lips with water, the sufferer, somewhat refreshed, observed, "Have I done harm to any one? It was not to rob me that the assassin struck the blow, for he fled immediately. In my country the attack is made openly, and with the sword, but here the dagger!—"

André would have called in a physician, but his friend prevented him, assuring him he was past human aid. A few minutes, and he breathed no more. On the morrow, the splendid obsequies for the deceased, attended by all the artists of Florence, attested the deep grief of the Seigneur André del Castagno, who also erected a costly monument to the memory of the young stranger. The whole city lauded the interest which he condescended to take in a foreigner; his celebrity increased, and the mother of Van Mander died blessing the name of André. Yet all this fame and honour satisfied not the Seigneur del Castagno. He was evidently suffering from some concealed remorse; his admirers said he had never forgotten the death of the young Fleming; his piety passed into a proverb, and he was called *l'ami de l'étranger*—the foreigner's friend.

Grief failed not to hasten the end of André. His health declined visibly; at length he could no longer handle his brushes. The physicians called in by his friends were refused admittance; he wished to die, for life was to him but a horrible punishment. Finally, feeling his approaching dissolution, he collected about him all his friends, and thus addressed them:—

"O you! whom I once called my friends, I am dying. I am too culpable to hope for pardon on earth or in heaven; still I feel that the avowal of my crime renders my last moments less painful. Many years ago, I received into my house a young foreigner who fell by the hand of an assassin—I am that assassin. Was it not infamous to stab one who had eaten at my table—whom I had called my brother? God would not be just were he to pardon so heinous an offence!"

A feverish strength sustained the dying man; he raised himself in bed, as if to escape from a frightful vision, and fell back motionless. The attendants departed in silence, a priest alone remaining to pray over the corpse.—When this awful truth was known, the senate of Florence ordered the name of André del Castagno to be struck out from the records of the city. His pictures were publicly burnt, his ashes were scattered before the winds, and his name was held up to universal execration.—*Translated and abridged from Le Constitutionnel, Journal Politique et Littéraire.*

## OBITUARY.

ON January 10, 1837, died John Robinson, M.D., at his house in Hall Gate, Doncaster, aged 59. He was born at Cawood Hall, near Spalding, Lincolnshire, acquired his medical education with the celebrated Dr. Harrison, and obtained his degree at Edinburgh. Subsequently he settled for a short time in Derby, but afterwards removed to Doncaster, where he practised about thirty years, with great credit and extensive usefulness. He acted for many years as physician to the Dispensary, and the poor will long remember his honest, upright manner, and genuine benevolence, with feelings of gratitude. He also gave his gratuitous services to the Yorkshire Deaf and Dumb Institution from its commencement till about a year before his death, when Dr. Scholfield was requested to accept the office. Such was his urbanity that he was respected by all parties and all classes; and by the *unprejudiced* practitioners of his time his name is associated with the pleasing recollection of his having been the first physician who devoted his talents to the relief of diseases of the spine on Dr. Harrison's principles of spinal Pathology. When Dr. Robinson was pupil to Dr. Harrison, at Horncastle, in Lincolnshire, and when Dr. H. began his spinal practice in London with such decided success, he communicated not only the principles, but all the manual and mechanical part of the treatment, to his favourite pupil, our late worthy friend; and nothing could be more pleasing than to witness the warm friendship which subsisted between these two gentlemen—the pupil honouring the master, and the teacher repaying this regard, through a long life, with marked confidence and esteem, until death claimed the younger man as his victim. We have often admired the magnanimity with which Dr. Robinson bore the *odium* which is attached to any new species of practice; but he knew and felt that it was one eminently calculated to mitigate, and often to cure, the maladies resulting from curvature of the spine. It was conviction that urged him “through evil report and good report,” and he lived to see even the most vehement opponent admit the value of the system and the importance of the practice. There was in all Dr. Robinson's actions the impress of good principles, and he conscientiously persevered in that which his intellect decided to be correct; and although he valued the good opinions of his cotemporaries, yet he never compromised his consistency or integrity to obtain it. He might not be always right, but he was never intentionally wrong. He was invariably candid and just, never indulging in spleen at disappointment, nor did he make the errors of others a subject of comment. To his cotemporaries he was just, and particularly appreciated any kindness or attention; but he was likewise much pained when he experienced the contrary, if unmerited; and when he finished his earthly career there was but one sentiment manifested, that of great regret at his somewhat unexpected summons to “that bourn from whence no traveller returns.”

January 16, 1837, at his father's house, in Glasgow, in his 36th year, Robert Macnish, M.D., author of *Philosophy of Sleep*, *Anatomy of Drunkenness*, *Catechism of Phrenology*, *Book of Aphorisms*, &c., works well known to the majority of our readers.

January the 17th, at his house, in Newhall-street, Birmingham, aged 36, Mr. George Parsons, Fellow of the Royal College of Surgeons, and one of

the Surgeons to the Birmingham Infirmary. The great loss which has been sustained by the death of this most estimable and highly-talented gentleman, will be most severely felt by all classes of society. The varied acquirements which his mind, ever active in the pursuit of knowledge, had made in the different branches of literature and science, made his society particularly valuable to all those who had the pleasure of enjoying it. The successful manner in which he employed his professional skill to relieve the sufferings of the poor, the generous sympathy he displayed in their distresses, and the untiring exertions he made to relieve their wants, have obtained for him the affectionate attachment of this large and important portion of the community. The extensive attainments of Mr. Parsons in the various branches of science, rendered him a most valuable acquisition to the Philosophical Institution of Birmingham, which he joined in the year 1827, and was appointed Secretary in the year 1829. Mr. Parsons was a frequent contributor to several of the medical periodical publications; and some very interesting papers of his, containing a statistical account of the diseases of this town are published in the Reports of the Midland Medical Association. He held the office of Local Treasurer of the British Association for the Promotion of Science.

January 22, 1837, at his residence, Howland-street, London, Dr. Thornton, the celebrated botanist.

January 24, aged 67, Joseph Sabine, Esq., F.R.S., L.S., H.S., Z.S., &c., many years Honorary Secretary to the London Horticultural Society, and a well-known amateur of Botany. Mr. S. was brought up to the bar; but shortly after he had begun to practice, he received an appointment under government, at a salary of £600 a year. This office he held till 1835, when he was put upon the retired allowance of £350. per annum. In 1810, Mr. S. joined the Horticultural Society, of which he was made Honorary Secretary on May 1, of the same year, upon the resignation of R. A. Salisbury, Esq. After Mr. S. ceased to be Hon. Secretary, he became an active member of the Zoological Society, and was the means of greatly increasing its collection of ornamental plants, in the Regent's Park.

On the 4th of February, John Latham, M.D., F.R.S., L.S., A.S., closed his long and honourable career, at Winchester, in his 97th year. A biographical sketch of this celebrated naturalist will appear in our next number.

Science has recently sustained a severe loss in the death of Edward Turner, M.D., who departed this life February 12, at his residence at Hampstead, aged 40. He died of inflammation of the lungs, which commenced in an attack of influenza. He had suffered many years under chronic affection of the intestines, by which his strength was greatly reduced. Dr. T. was born in Jamaica, but was early removed for his education to England, and obtained his degree at Edinburgh. Having determined to make Chemistry his chief study, he then went to Göttingen, where for two years he devoted his whole attention, under Prof. Stromeyer, to that science and Mineralogy. He returned to Edinburgh in 1824, and began to lecture on his favourite science. On the foundation of the London University, he was appointed Prof. of Chemistry at that Institution, to the success of which, as a medical school especially, he has contributed an ample share. His class was large and flourishing; his lectures were remarkable for the simplicity and clearness with which the most apparently complicated principles and facts were ex-

pounded, and he was considered the model of an effective teacher. As a chemist, Dr. T. was early known as a most acute and original observer, and he was distinguished for the extent and accuracy of his knowledge in all departments.

At Paris, M. Van Praet, a bibliographer of the first eminence in nearly all branches of learning.

At Upsala, in the 87th year of his age, Professor Adam Afzelius, the last surviving pupil of the immortal Linneus.

The learned botanist of the Cape of Good Hope, M. Persoon, is no more; he died in Paris, at a very advanced age, having lived there since he enjoyed a pension from his Government, which was granted to him on giving up his Herbarium to the Museum at Leyden. His works on *Cryptogamea* are excellent, and his *Enchiridium Botanicum* is one of the most useful works of the kind ever published.

## LITERARY INTELLIGENCE.

Mr. John Britton, F.S.A., has published a Catalogue Raisonné of his unique Collection of Works on Cathedral and Architectural Antiquities, and other choice Literary and Graphic Works, which are offered at somewhere about *half* the cost of the publishing prices.

*The Bridal of Naworth*, a Poem, in three cantos, has just been published by Simpkin, Marshall, & Co.

Mr. Hoskins, the author of *Travels in Ethiopia*, has in the press an account of a Visit to the Great Oasis, with an account, Ancient and Modern, of the Oasis of Amun and the Oases of the Libyan Desert, now under the dominion of the Pasha of Egypt.

A new edition of Inglis's *Spain* is in the press, with an introductory chapter, giving some account of the lamented author, and an outline of the proceedings in the Peninsula since his decease.

The Rev. T. R. Everest has lately published a second edition of his *Popular View of Homœopathy*.

*Modern India*; or Illustrations of the Resources and Capabilities of Hindostan, a work from the pen of Henry H. Spry, Esq., M.D., of the Bengal Medical Staff, which promises to add greatly to the information already extant concerning the British Empire in Hindostan.

## SELECT LIST OF NEW PUBLICATIONS,

FROM JANUARY 1, 1837, TO MARCH 8, 1837.

Addison's Indian Reminiscences, 8vo., 14s.

Antrobus's Social Bearings and Importance of Education, 8vo., 10s.

Barton and Castle's British Flora Medica, vol. 1, 8vo., 21s.

Boullaye le Gouz' Tour in Ireland, 1644, edited by Croker, post 8vo., 5s.

Brenton's (Capt.) Naval History, 2 vol. 8vo., 31s. 6d.

Campbell's (Thomas) Letters from the South, 2 vol. 8vo., 31s. 6d.

Castle's Linnæan Artificial System of Botany, 4to., 5s.

Cooper's (J. F.) Recollections of Europe, 2 vols. post 8vo., 21s.

- Crossley's (T.) *Flowers of Ebor*; poems, 12mo., 6s.  
 Duncan's *Sacred Philosophy of the Seasons* (Spring), fcap., 6s.  
 Duncumb's (T.) *British Emigrant's Advocate*, 7s. 6d.  
 Ede's *Practical Facts in Chemistry*, 18mo., 3s.  
 Edwards (T. C.) *on the Bladud Spa Waters*, 8vo., 3s.  
 Fairland's *Studies of the Human Figure*, 2 vols. royal 4to., 24s.  
 Faulkner's *Letters on a Tour through France*, &c., sm. 8vo., 9s. 6d.  
 Grund's (F. J.) *History of the Americans*, 2 vol. 8vo., 24s.  
 Home's (Dr. G. A.) *Guide for Invalids to the Continent*, 18mo., 3s. 6d.  
 Howitt's (Mary) *Tales in Prose*, 12mo., 5s.  
 Jardine and Selby's *Ornithology*, 3 vol. 4to., 10l. 10s., l. p. 15l. 15s.  
 Jardine's *Naturalist's Library*, vol. 17 (*Birds of West Africa*), 12mo., 6s.  
 Lardner's *Cyclopædia*, vol. 87 (*Southey's Admirals*, vol. 4), 12mo., 6s.  
 Lardner's *Cyclopædia*, vol. 88 (*Thirlwall's Greece*, vol. 4), 12mo., 6s.  
 M'Clelland's *Geology*, &c., of the Province of Kemaon, 8vo., 12s.  
 Millengen's (Dr.) *Curiosities of Medical Experience*, 2 vol. 8vo., 28s.  
 Mudie's (Robert) *Seasons* (vol. 1, Spring), royal 18mo., 5s.  
 Muskau's (Prince) *Semilasso in Africa*, &c., 3 vol. small 8vo., 31s. 6d.  
 Pearsall's (R.) *Contemplations on the Ocean*, &c., 8vo., 9s.  
*Pharmacopœia Londinensis*, translated by D. Spillan, 18mo., 6s.  
 Raumer's *Contributions to Modern History*, vol. 2, sm. 8vo., 10s. 6d.  
*Shukler's on the Indigenous Fossorial Hymenoptera*, 8vo., 14s.  
 Smith's *Birmingham and its Vicinity*, 8vo., 10s. 6d.  
 Smith's *Dudley Castle*, 4to., 9s.  
*Transactions of the Statistical Society of London*, part 1, 4to., 7s. 6d.  
 Turnbull's (Dr. A.) *Treatise on Painful and Nervous Diseases*, 8vo., 6s.  
 Walker (Mrs.) *on Female Beauty*, post 8vo., 30s. bound.  
 Weatherhead's (G. H.) *Treatise on Diseases of the Lungs*, 8vo., 7s. 6d.  
 Wyse (T.) *on Education Reform*, vol. 1, 8vo., 15s.

## METEOROLOGICAL REPORT.

THE influenza, which, since my last report, has so universally prevailed among the high and low, rich and poor, first made its appearance in Malvern about the 15th of January—a week or ten days later than in London—and prevailed extensively among all classes, children excepted. The disease seemed to be similar in every respect to that which appeared in 1803, to which it was allied also by its general diffusion throughout the whole kingdom; in 1831, and again in 1833, the same disorder appeared in a minor degree. This is not the place to enter into any detail as to symptoms, treatment, mortality, &c.; I may, however, remark that it appears extremely difficult to trace its origin to any of those atmospheric phenomena indicated either by the barometer, thermometer, or hygrometer. The vicissitudes of temperature in December and January were considerable, but not *peculiar*; whilst the pressure and hygrometric conditions of the air were by no means *remarkable* in any respect. That extraneous impregnations exist, hitherto undetected by chemical analysis, and to which epidemic diseases—such as that which has just visited us—owe their origin and progress, there can be no doubt; the atmosphere, even when very dry, is very often extremely misty and hazy, and this mist or haze cannot, under such circumstances, be attributed to vapour—it must be something else; and we have only to collect a sufficient quantity of it, and to examine minutely into its nature, in order to become acquainted with its effects upon the human frame. To do this an immensely larger quantity of air *must be searched* than any yet sub-

jected to examination; a bottle full, a room full, or a *house full*, would contain too small a quantity for such a purpose. I think means might easily be devised for thus *searching* a much larger quantity of air than any yet attempted, and I hope on some future occasion to shew how this may be done. The disease disappeared rather suddenly on the 14th or 15th of February, having continued just one month.

“February 18th, at 6 p. m.—Barom. 28.960; clouds and rain. At 6½ p. m.—Very heavy rain indeed; wind veering from S. W. to W. N. W. At 9 p. m.—Barom. 29.045; brilliant, clear, moon-light night; fresh breeze from the westward, and an extensive and varied Aurora; a large, reddish-looking arch extending from N. W. to N. E., with streamers up to the zenith; the effect greatly diminished by the bright moon: the Aurora did not continue long. 10½ p. m.—Went out about half an hour ago to see the occultation of Mars by the moon, when my attention was arrested by a most brilliant, broad, light-red, or almost carmine-coloured, arch, stretching across the heavens. It was much broader and more deeply coloured at either extremity than in the centre: to the eastward it passed between the tail of the Great Bear and Arcturus. The middle of the arch, which was very faint, passed through the two principal stars in Gemini, and the western extremity crossed the two largest stars in the shoulders of Orion, viz.,  $\alpha$  and  $\gamma$ . In a little while the western extremity of the arch shifted over Aldebaran, and ultimately over Capella, throwing out now and then very vivid streamers. I never saw a luminous arch of such a peculiar colour—so beautiful and, notwithstanding the clear moon-light, so brilliant! Now and then several delicate pencilings of the same hue appeared near the zenith. The *eastern end* of this arch *passed* at length over Arcturus *towards the south*, while the *western end moved towards the north*, disappearing between Capella and Cassiopia. On the 19th, boisterous S. W. gale and heavy rain.”—W. A.

Malvern, March 20th, 1837.

## DECEMBER.

1836	Barometer.		Thermometer.		Remarks.		
Dec.	Morn.	Even.	Max.	Min.	Day.	Night.	Wind.
1	29.275	29.430	44	34	Clouds, sun, rain	Fine	S. W., light
2	29.260	28.980	50	40	Clouds, wind, and rain	Clouds & rain	S. W., strong
3		29.180	53.5	43	Fine and windy	Thndr. & rain	Westerly
4	29.085	29.185	54	50	Fine, clouds, and wind	High Wind	Westly by N.
5		29.220	53		Showers and wind		S. Westerly
6		29.085	51.5	45	Cloudy and fine		
7	28.730	28.910	47.5	45	Hvy. showers and wind	Rain	W. S. W.
8	28.490	28.400	42.5	39	Hvy. showers and wind	Showers	W. N. W.
9	28.400	28.300	39	34	Sun and snow		Light airs
10	28.520	28.750	39	31.5	Showers, fine	Fine, frosty	Lt. airs, Wly.
11		29.000	39	32	Cloudy, calm, fine		Light airs
12		28.635	50	32	Fog and rain	Frost, rain	S. W.
13	28.600	28.660	39	35	Cloudy	Wind and rain	W. S. W.
14	28.725	29.125	43	35	Fine, windy		W. N. W.
15	29.500	29.010	40	35	Fine, boist. wind, rain	Fine	N. W.
16	29.235	29.530	43.5	37	Cloudy, wind	Rain, wind, fine	W. N. W.
17	29.520	29.450	48	37	Clouds, rain	Fine	W. S. W.
18	29.530	29.630	52	49	Fine, mild	Fine	Light airs
19	29.580	29.530	48	44.5	Fine, cloudy	Fine	S. W.
20	29.685	29.725	45	42	Fine	Fine	Light, vble.
21	29.735	29.850	47	38	Fine, cloudy	Fine	Westerly
22	29.845	29.590	51.5	44	Fine, cloudy	Clouds, fine	N. W.
23	29.350	29.220	35	34	Cloudy, clear	Rain	Northerly
24	29.260	29.430	33	28	Cloudy, sun	Snow	N. N. E.
25	29.375	29.300	27	23	Snow and wind	Clear, fine	N. N. E.
26	29.160		30	26	Cloudy, windy	Snow & wind	N. E.
27	29.310		32	29	Some snow		Calm
28	29.435	29.520	31.5	28	Cloudy, light wind	Snow	Northerly
29	29.560		32	30	Cloudy	Cloudy	N. W., light
30	29.580	29.665	32	27.5	Clouds and sun	Cloudy	Northerly
31	29.970		32.5	29	Cloudy	Fine	W. N. W.
Mean Max. 42.1			35.8 Mean Min.				

## JANUARY.

1837 Jan.	Barometer.		Thermometer		Day.	Remarks.		Wind.
	Morn.	Even.	Max.	Min.		Night.		
1	30.035	29.930	35	29	Cloudy, fine			Northerly
2	29.860	29.845	40	32	Cloudy, fine	Cloudy		N. W.
3		29.760	39					W. N. W.
4	29.830	29.720	40.5	35	Cloudy, fine	Cloudy		Lt. Westerly
5	29.550	29.210	37	35	Cloudy, fine	Cloudy		Light airs
6	29.040	28.990	44	34	Fine, sun	Rain		Westly., high
7	29.115	29.430	44	36.5	Fine	Windy, showers		Westly., high
8	29.660	29.640	40	32	Fine	Frosty		Westly., light
9	29.620	29.435	50	40	Fine, clouds, wind	Fine		Westerly
10	29.160	29.535	51	45	Showers	Showers		Westerly
11	29.650	29.670	32	26.5	Fine	Clear, frost		Northerly
12		29.035	40	26	Snow	Cloudy		S. W.
13	28.845	29.235	51	43.5	Showers	Rain		Westerly
14			33	31	Fine	Frost		North
15	29.930	29.840	33	29	Fine, cloudy	Fine		N. E.
16	29.800	29.780	40	30	Damp, wet			Variable
17	29.760	29.670	42	40	Damp, wet	Cloudy		Northerly
18	29.570	29.440	36	36	Damp, wet	Cloudy, rain		Northerly
19	29.440	29.330	33	33	Damp, misty	Cloudy		Easterly
20	29.180	29.170	34	31	Cloudy, damp	Showers		Light, vble.
21	29.090	28.955	42	31.5	Fog and rain	A little snow		S. W.
22	28.735	28.800	50	41.5	Cloudy	Rain		Southerly
23	28.850	28.790	51	41	Rain	Rain		Southerly
24	29.000	29.140	50	43	Showers	Fine		Westerly
25		29.160	43	37	Fog and rain	Rain		Northerly
26	29.125		39.5	37	Rain	All rain		N. Easterly
27	29.325	29.380	38	35	Rain			East
28	29.430	29.400	35	32.5	Cloudy	Cloudy		N. E.
29	29.300	29.240	33	30	A little snow	Snow		Easterly
30	29.200	29.240	41	30	Rain	Snow		S. E.
31			44.5	39	Showers	Rain		
Mean Max.			40.7	34.7	Mean Min.			

## FEBRUARY.

1837 Feb.	Barometer.		Thermometer.		Day.	Remarks.		Wind.
	Morn.	Even.	Max.	Min.		Night.		
1			42	37	Clouds, sun			S. E.
2	29.750	29.770	45		Cloudy, fog, damp			Light, vble.
3	29.800	29.840	43.5	38.5	Clouds, fog, rain			Southerly
4		29.800	41		Fine, cloudy, cold			Easterly
5	29.770	29.770	41	32.5	Cloudy, damp, cold	Cloudy		S. Easterly
6	29.800	29.740	42	34.5	Fine, sun			S. Ely. vble.
7	29.620	29.660	42	35.5	Fine, sun			Southerly
8	29.590	29.640	45	36	Clouds, rain	Cloudy		S. E., light
9	29.735	29.535	46.5	41	Fog, windy			Southerly
10	29.230	29.125	52	44.5	Rain and wind			S. W.
11	28.600	28.550	50	42	Showers, high wind	Rain		S. W.
12	28.920	28.660	42	35	Clouds, sun, fine	Fine		W. N. W.
13	28.700	28.660	47	39	Heavy showers	Heavy rain		Westerly
14	28.800	29.260	47	35	Fine, clouds, sun	Heavy rain		Westerly
15	29.430	29.454	50	34	Fine, cold wind	Fine		N. W., Vble.
16	29.520	29.428	55	46	Very fine	Clouds & rain		S. W.
17	29.654	29.685	51	40	Very fine	Fine		S. W.
18	29.355	28.960	50	38	Windy, showers	Fine		S. W.
19	28.990	28.560	49	32.5	Bois. gale, cont'd. rain	Fine		S. W.
20	28.932	29.090	46	34	Fine, windy	Fine		Westerly
21	28.966	29.134	50	39.5	Very windy	Shs., wind, hail		Westerly
22	29.334	29.408	45	35	Very windy	Windy		W. N. W.
23		28.950	54	39	Wind & rain, & snow	Clouds & rain		S. W.
24	29.355	29.525	40	32	Windy and snow shrs.			N. N. W.
25	29.640	29.725	39	31	Fine, clouds and sun	Hail and snow		Northerly
26	29.710	29.600	41	27	Fine	Fine, frost		Calm, vble.
27	29.425		41	32	Fog and rain			Calm, vble.
28	29.480	29.790	41.5	35	Misty and cloudy			Northerly
Mean Max.			45.6	36.3	Mean Min.			

25 NOV. 1916





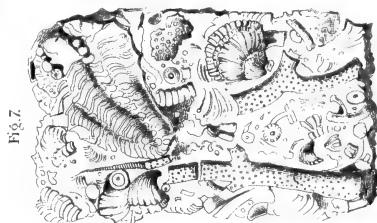
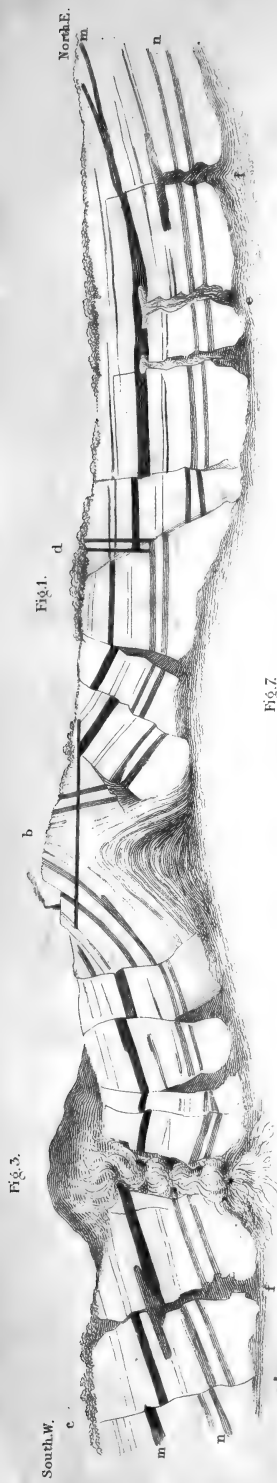


Fig. 2.



Fig. 8.

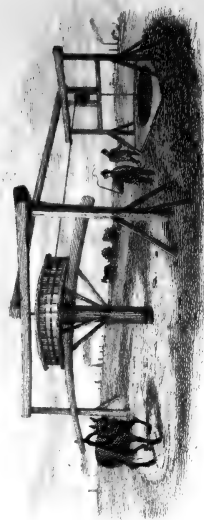


Fig. 5.



Fig. 6.

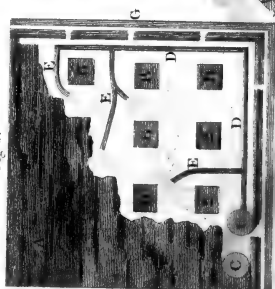


Fig. 4.





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## TO CORRESPONDENTS.

Notwithstanding we have given our readers an additional *eight* pages in the present number, we have been obliged to omit a notice of the Herefordshire Natural History Society, and likewise an account of the opening of the Mechanics' Institution at Lichfield, on which occasion the Rev. Chancellor Law delivered a very luminous and impressive address.

We have also been reluctantly compelled to postpone critical notices of the following publications:—The *Ninth Bridgewater Treatise*; MacGillivray's *British Birds*; *Manual of Phrenology*, by John Epps, M.D.; *Spartacus, or the Roman Gladiator*, by Jacob Jones, Esq.; *Post Office Reform, its Importance and Practicability*, by Rowland Hill; *An Appeal to the Public on the subject of Railways*, by George Godwin, Esq.; *Dovecot, or the Man of many Impulses*; *Colonial Policy of the British Empire*; *Memorials of Shrewsbury*; and *A Horticultural Tour through Germany*.

It is requested that all communications sent to the Editors may be directed (POST PAID) to the care of MR. BARLOW, Bookseller, Bennett's Hill, Birmingham; and contributions should be sent *early* in the quarter *preceding* that in which they are expected to appear.

No. XXI. of *The Analyst* will appear on the 1st of October next.

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## ESSAY ON THE RATIONALE OF CIRCUMSTANTIAL EVIDENCE.

By WILLIAM WILLS, Esq.

OF the various kinds of moral evidence, that of testimony is the most important and comprehensive in its relation to human concerns; and, considering how many of our daily determinations are grounded upon that kind of evidence, even where we least suppose that we are pursuing a logical process, and how important it is that our judgments should be correctly formed, the subject is one of deep curiosity and interest. To enter upon the subject of testimony at large, would be to treat of the conduct of the human understanding in relation to the greater portion of the affairs of life. A due regard to unity of plan requires that I abstain from even glancing at many kindred and interesting topics, and that I restrict my observations as much as possible to that specific portion of moral evidence which I propose to consider.

It would be erroneous and unjust, because the subject is best capable of illustration by forensic occurrences, to conclude that it more especially concerns the pursuits or the members of a particular profession. Such events are amongst the most deeply touching and dramatic incidents of social life; and throw a fearful light upon the darker parts of human nature, "as earthquakes and volcanoes disclose the layers which compose the deeper parts of our planet, beneath a fertile and flowery surface."\* The subject is of universal concernment, and relates to an intellectual process applicable to every branch of human speculation.

It is desirable to clear the subject of ambiguity from the inaccurate use of language. The word *proof* is often applied to that which is merely the *medium of proof*. The judgment in relation to any alleged fact is always founded upon evidence, and when the result is that state of opinion which we distinguish by the term *belief*, we correctly say that the subject-matter of our inquiry is proved. Proof, then, is that quantity of evidence which produces belief, and they severally differ as cause and effect.

The epithets direct, or indirect, or circumstantial, as applied to moral evidence, have been sanctioned by such long and general use that it might seem presumptuous to question their accuracy, as it

\* Mackintosh, *Ethical Dissertation*, p. 228.

would be needless and perhaps impracticable to substitute others ; but their distinctive propriety is certainly not evident, and the misuse of them has occasionally been the cause of lamentable errors.

On a superficial view it might be thought that the terms direct and circumstantial denote distinct *kinds* of evidence, whereas in reality they denote only the different probative nature of *evidentiary* facts themselves. The actual distinction is, that by *direct* evidence is intended proof of the *fact* which is the subject of inquiry—the *factum probandum*. *Circumstantial* evidence is equally direct in its nature, but it is direct evidence of a minor fact or collection of facts more or less usually connected with some other fact, and from which it is usually inferred. A fact of this latter kind is called *factum probans*.

The term *presumptive* is frequently used as synonymous with circumstantial evidence, but it is never so applied with accuracy. A presumption is a probable *consequence* drawn from proved facts, as to the truth of a fact alleged, but of which there is no direct proof. The word *presumption*, therefore, inherently imports a conclusion of the judgment, based upon circumstantial evidence ; and it is more accurate to apply it only to conclusions from facts or moral phenomena. A wounded and bleeding body is discovered ; it has been plundered ; wide and deep footmarks are found proceeding in a direction from the body. These circumstances induce the conclusion that a crime has been committed, and that conclusion is properly termed a *presumption*. The Judgment of Solomon is a memorable instance of a presumption afforded by moral phenomena.

Direct and circumstantial evidence are essentially distinguished by the *manner* in which they produce belief. So rapid are our intellectual processes, that it is frequently impossible to trace the connection between an act of the judgment and the train of reasoning of which it is the consequence ; and the one appears to succeed the other by a kind of necessity, as the thunder follows the flash. But the case is widely different when we have to determine upon circumstantial evidence, the judgment in respect of which is essentially deductive and inferential ; the facts may be true and the deduction false, and it is only by long experience that we acquire confidence in the accuracy of our conclusions.

It is essential in all investigations founded upon moral evidence, and especially upon circumstantial evidence, that we correctly estimate the kind and degree of assurance of which the subject admits. The end of all intellectual research is the discovery of truth, or the conformity or disagreement of ideas. *Abstract* truth concerns *ne-*



*cessary* relations, and its first principles are *definitions* which exclude all ambiguity of language and ideas, and lead infallibly from step to step to conclusions the most remote from common apprehension. But the subjects which admit of mathematical certainty are comparatively few. Innumerable truths, the knowledge of which is indispensable to happiness, and even to existence, must be believed upon evidence of an inferior kind. The subjects of moral evidence are facts and relations which may or may not exist, and as to which our reasonings and conclusions may be erroneous and false. In the case of abstract truth, absolute and infallible demonstration is the result, to which moral certainty the highest assurance we can have of moral truth, is obviously and necessarily inferior.

Numerous attempts have been made to give mathematical form and precision to moral reasoning, but to little purpose, except as they shew the ingenuity of their authors ; and, without presumption, they may be declared to be destitute of any useful and practicable application. A learned author, whose high praise it is to have "done more than any other writer to rouse the spirit of judicial reform," but whose merits have been obscured by his eccentricities of thought as well as of style, has gravely demanded whether Justice requires less precision than Chemistry. The truth is that the precision required in the one case is of a nature of which the other does not admit. It would surely be absurd to require the proof of a moral or historic fact by the same kind of reasoning as that by which we establish that the three angles of every triangle are exactly equal to two right angles ; or that, in certain of the conic sections, the latus rectum is a third proportional to the major and minor axes.

Unlike the assent which is given to mathematical truth, belief may be of various degrees, between the highest and lowest of which there are innumerable shades of conviction, which the latency of mental operations, and the imperfections of language, render it impossible to define or express. Nor is it material, in relation to subjects of moral inquiry, that exact expression cannot be given to the inferior degrees of belief. The doctrine of chances, and nice calculations of probability, cannot be applied to human actions, which are essentially unlike, and dependent upon peculiarities of person and of circumstances, which render it impossible to compare them with a numeral standard.

It is true, that, in the common affairs of life, we are frequently obliged from necessity and duty to act upon evidence which produces the lowest state of belief ; and Locke very justly remarks,

that "he who will not stir till he infallibly knows the business he goes about will succeed, will have little else to do, but sit still and perish."\* But in such cases our judgments concern *ourselves*, and our own duties and interests; while in moral judgments and penal jurisprudence, a rule of action is applied to the conduct of *others*, where external and sometimes ambiguous indicia constitute the only basis of judgment. In the application of a rule of action, the moral certainty of the facts is its only just foundation and vindication, and upon any lower degree of assurance it would be arbitrary and indefensible.

But, though a process purely mathematical cannot be applied to moral evidence, a proceeding somewhat analogous is always followed in the examination of a group of facts which are adduced as reasons for inferring the existence of another fact. We mentally collect on one side of the equation all the circumstances which have an affirmative value, and on the other, all those which lead to the opposite inference, or which diminish or destroy the weight or relevancy of the facts which have been put into the opposite scale. As in algebraic addition, we incorporate the opposite quantities, positive and negative, and the balance of probabilities constitutes the ground of human judgment and belief.

The best writers on the subject of moral evidence, have been unanimous in treating circumstantial as inferior in cogency to direct evidence; a conclusion which seems to follow necessarily from the very nature of these different kinds of evidence. But assertions of a different import are to be found in some late authorities.

It has been said that "circumstances are inflexible proofs; that witnesses may be corrupted or mistaken, but things can be neither."† "Circumstances," says Paley "cannot lie." It is astonishing that sophisms like these should have passed undetected. These passages *assume* the circumstances to be in every case established beyond all possibility of mistake, and that the conclusions from them are necessary and infallible;—and imply that circumstantial evidence possesses some mysterious force peculiar to facts of a certain class. Now, a circumstance is neither more nor less than a minor fact; and it may be admitted of all facts that they cannot lie; for a fact cannot at the same time exist and not exist, so that the doctrine expresses a mere truism, that a fact is a fact. It may also be admitted that circumstances are "inflexible proofs;" but so

\* *Essay on the Human Understanding*, b. 4, c. 14, s. 1.

† Burnett, *On the Criminal Law of Scotland*.

are facts of every kind, so that this is only a repetition of the same sophism. Although "circumstances cannot lie," the narrators of them may, and, like witnesses of all other facts, they may be biassed or mistaken.

Burke appears to have adopted, without scrutiny, the notion I am combatting. "When circumstantial proof," says he, "is in its greatest perfection—that is, when it is most abundant in circumstances—it is much superior to positive proof."\* Paley says: "a concurrence of well-authenticated circumstances composes a stronger ground of assurance than positive testimony, unconfirmed by circumstances, usually affords."† The fallacy of these passages is, that they select an *extreme* case for the support of a *general* position: they contrast slender or doubtful cases of positive evidence, with cases of circumstantial evidence of the strongest kind, and calculated to produce the highest degree of assurance. If evidence be so powerful as "necessarily to produce conviction" (in the language of Mr. Justice Buller on the trial of Donellan), it matters not by what kind of evidence the effect is produced: the proving power must be precisely the same whether the evidence be direct or circumstantial. But a judgment based upon circumstantial evidence cannot, in any case, be of a different nature from or more satisfactory than when the same result is produced by direct evidence free from suspicion of bias or mistake.

Attempts have been made, more especially by the civilians, but with no advantageous result, to classify and tabulate individual facts under terms expressive of their intrinsic and relative value as presumptions. In matters of property, the laws of every country have created artificial legal presumptions, grounded upon reasons of policy and convenience, to prevent discord and to fortify private right. "The very essence of such matters depends on the arbitrary convention of men. Men act on them with all the power of a creator over his creatures."‡ But in Morals and Jurisprudence, man, as a physical being and as a moral agent—such as he is by natural constitution, and by the influences of social condition—is the subject on which the legislator and the moralist have to operate; and with physical actions merely they have nothing to do. "The presumptions which belong to criminal cases, are those natural and popular

\* *Burke's Works*, v. ii., p. 624, ed. 1834.

† *Moral and Political Philosophy*, b. iv., c. 9.

‡ Burke, *supra*.

presumptions which are only observations formed into maxims, like adages and apothegms, and are admitted, when their grounds are established, in the place of proof, where better is wanting, but are always to be overturned by counter proof."\* It is impossible, therefore, to lay down arbitrary rules of presumption, where every case must be connected with peculiarities of personal character and concomitant circumstances, and therefore irreducible to any fixed principle. It would be as wise to lay down at Lloyd's positive regulations obliging a captain when within a certain distance of a rock to abandon his vessel.† Who can recall without horror the bloody law of James I., which made the concealment by the mother of the death of her illegitimate child conclusive evidence of murder? whereas it affords not the slightest warrant for such a conclusion. Obnoxious enactments of a similar character, to the disgrace of our age, are yet in legal existence; but by a wise ordination, the feelings rebel against all barbarous laws and render them practically a dead letter.

Other writers have proposed to divide presumptions into necessary, probable, and slight; but the scheme is fanciful rather than practical, since it is impossible thus to classify more than a very few of the infinite number of circumstances connected with human motives and conduct, and the terms of designation, although not destitute of utility, are yet, from the inherent imperfections of language, unavoidably defective in exactness.

The mental and physical constitution of man, and his external relations, are the sources of evidentiary facts. In every inquiry into the truth of an alleged fact, of the existence of which we are required to judge on the foundation of secondary facts, there must exist certain connections and dependencies with the principal fact, which will be manifested by external phenomena. No action of a rational being is indifferent, solitary, or independent, but must necessarily be joined with antecedent and concomitant states of mind, and with external circumstances, and of their actual connection, though it may not be invariably apparent, there can be no doubt. There must be a voluntary agent, the act must have corresponding propinquity to some precise moment of time and portion of space, there must have existed inducing states of mind and material objects of desire; these, the means of flight or disguise, and a thou-

\* Burke, *supra*.

† *Edinburgh Review*, vol. xlviii., p. 499.

sand other particulars connected with individual conduct, and with moral, social, and physical relations, afford materials for the determination of the judgment.

We assume the existence of an inducing motive for the voluntary acts of a rational agent as naturally and unhesitatingly as we look for secondary causes in material phenomena. The predominant desires of the mind are invariably followed by corresponding volitions and actions. It is indispensable, therefore, that, in cases of imputed guilt, we look at all the surrounding circumstances which connect the supposed actor with other persons and things, and may have influenced his conduct.

The passions are great casuists, and to enumerate the infinite ways in which they had to act, even if it were possible, would not be relevant, and would trespass upon a distinct department of moral science. We must not, however, lay undue or even great stress upon the existence of motives, which can never supersede the necessity for precisely the same weight of proof as would be necessary in the absence of evidence of such a stimulus. The external circumstances which *seem* to present motives, may never have operated on the mind. Suspicion—too readily excited by unfavourable appearances—is incompatible with that even state of mind which is indispensable to correct and sober judgment.

Neither must we expect to discover the existence of motives which, on a just estimate of things, can be regarded as adequate. It is of the very essence of moral weakness that it forms a mistaken estimate of present good; and there *must*, therefore, be a want of proportion between the objects of desire and the sacrifices made to obtain them.

The moral anatomist has, moreover, to encounter other and formidable difficulties in endeavouring to trace the invisible links which connect actions with their impelling motives. The desire of the approbation of our fellow men has a powerful, often a very auspicious, but sometimes a dangerous, influence upon the character. Hence the human mind is subjected to the action of antagonist principles, and the crafty are obliged to assume the semblance of characteristics of which they are utterly destitute, the natural inclination to truth being destroyed by overpowering inducements to dissimulation.

It would be impossible to enumerate the infinite variety of circumstantial evidentiary facts, which are necessarily as various as are the modifications and combinations of events in actual life. "All the acts of the party, all things that throw light on these acts, all

the acts of others relative to the affair that come to his knowledge and may influence him—his friendships and enmities—his promises, his threats, the truth of his discourses, the falsehood of his apologies, pretences, and explanations—his looks, his speech, his silence where he was called to speak—every thing which tends to establish the connection between all these particulars, every circumstance, precedent, concomitant, and subsequent, become parts of circumstantial evidence. These are in their matter infinite, and cannot be comprehended within any rules or brought under any classification.”\*

All of these facts and circumstances are, however, susceptible of a general, though not of a perfect, arrangement under two classes; namely, moral indications afforded by the language and conduct of the party, and secondly, facts which may be termed, for want of a more appropriate term, *abstract* facts—that is, facts apparently extrinsic and independent of moral conduct. This arrangement, indefinite as it is, is grounded upon the apparent rather than the real qualities of actions, and cannot be regarded as strictly accurate, since all the actions of a rational agent are prompted by motives, though it be not always practicable to trace the connection between them.

These great divisions are capable of reduction to subdivisions, every one of which may be made the centre of an assemblage of curious and instructive cases, many of them of the most extraordinary and tragic interest. But, ample as are my materials, on this occasion I can do no more than thus briefly advert to the practicability of such an arrangement and classification.

It is obvious, that, in all questions of moral evidence, where we seek for the hidden cause of observed phenomena, we impliedly or expressly assume and refer to a standard of probability, both as respects physical and psychological facts. I need not remark upon the difference between mathematical and moral probability, nor observe that moral probability does not imply any deficiency in the proof, but only marks the particular nature of that proof, as contradistinguished from another species of proof.†—Moral probability is the accordance of facts which we receive upon testimony, with other facts with which we are previously acquainted.‡ It would obviously be most erroneous and unsafe to be influenced in our reception of facts, solely by the results of our own observation and

\* *Burke's Works*, vol. ii., p. 623.

† Stewart's *Elements of the Philosophy of the Human Mind*, vol. ii., p. 252.

‡ Abercrombie, *On the Intellectual Powers*, p. 74.

experience. We may remember the incredulity of the King of Siam, who, when the Dutch ambassador, entertaining him with an account of his own country, told him that the water in cold weather was so hard that men walked upon it, and that it would even bear an elephant, replied, hitherto I have believed the strange things you have told me, because I look upon you as a sober fair man, but now I am sure you lie.\* The Japanese who witnessed in 1803 the assent of Garnerin from Petersburg, evinced no surprise, and being asked if they had seen any thing of the same kind in Japan, answered no, but that nothing was more common among them ; and that the reason why they had not seen it was that the sorcerers in Japan traverse the air only during the night.

How instructive are the circumstantial details contained in our own *State Trials* of cases of imputed witchcraft, and of communications with evil spirits ! The venerable and excellent Hale consigned many persons to death for witchcraft. Upon the trial of two women at Bury St. Edmunds, in 1685, that good man said to the jury, that there were such creatures as witches he made no doubt, and left the case to them, with his prayer that " the great God of Heaven would direct their hearts in that matter." The learned Sir Thomas Brown, one of the first physicians and philosophers of his time, and the author of *A Treatise on Vulgar Errors*, declared himself " clearly of opinion that the persons were bewitched : " it is superfluous to add that they were executed.

It is astonishing how prevalent is yet the common belief in witchcraft. It was formerly a current belief that a corpse would bleed in the presence of its murderer ; and I could adduce some most curious cases of the unfavorable influence of this notion upon individuals of whose sincerity there can be no doubt, as well as upon the issue of judicial proceedings. A refusal to touch the corpse has often been advanced as cogent evidence of guilt ; and, strange to say, the last few years have presented many cases which shew the deep belief still entertained on this subject amongst the uninformed. So late as 1754, in a trial before the Court of Justiciary in Scotland, two witnesses deposed to their having seen a spirit, which told them where the body was to be found, and that the accused was the murderer. How many great names might be adduced as believers in relations of apparitions, which may be admitted to have been grounded upon mental impressions so strong as to be undistinguish-

\* Locke, *On the Human Understanding*, b. iv., c. 15, s. 5.

able from realities, but require not the hypothesis of supernatural agency.

Dreams have occasionally led to the discovery of murders, of which the case of William Corder, who was convicted and executed in 1828 for the murder of Maria Martin, presents a curious instance. A philosophical mind will discover no *causation* in the conjunction of events like these, nor anything more than sequence; the dream being the involuntary, and therefore vivid, recurrence in sleep of thoughts more or less transient, upon which the mind has meditated when awake; just as darkness seems more black and terrible after momentary light.

I forbear to increase the number of these illustrations, the pertinency of which will, however, be admitted when we consider what the mass of mankind still are, and the indispensable importance and inappreciable value of a correct standard of probability and analogical reasoning. Hence we infer the necessity of an enlarged and accurate knowledge of Nature, and of the springs and principles of human conduct; and thus it is that all the branches of knowledge are directly or remotely allied, and mutually receive and reflect light.

From what has been advanced it results that, in every investigation based upon circumstantial evidence, the process is, in the first instance, analytical and analogical. Every combination of facts is resolved into its constituent elements, and we reason upon them, separately and in combination, from what is known to what is sought. The groundwork of our reasoning is our confidence in the stability of the order of nature and in the operation of moral causes, which have a tendency to influence human conduct with a similar uniformity.\*

The argument from analogy is founded on the observation of *resemblances*; and, of consequence, the more numerous and close they are the safer will be our conclusions. Every branch of knowledge presents instructive examples of the extent to which this mode of reasoning may be securely carried. From shapeless ruins whose date, as the poet expresses it, "o'erawes tradition," the scientific observer is enabled to construct a model of the original in its primitive symmetry and magnificence. A profound knowledge of comparative anatomy enabled the immortal Cuvier, from a single fossil bone, to describe the structure and habits of many of the extinct animals of the antediluvian world. "The formation of the tooth,"

\* Abercrombie, *On the Intellectual Powers*, p. 205.



says that great man, "bespeaks the structure of the articulation of the jaw, that of the scapula that of the claws, just as the equation of a curve involves all its properties; and in taking each property separately as the basis of a particular equation, we should find again both the ordinary equation and all the other certain properties." We may corroborate and illustrate this remark by a case more immediately connected with our subject—that of Eugene Aram, whose eventful story has given birth to one of the most interesting of modern novels, and who was tried in 1759 for the murder, about fourteen years before, of Daniel Clark. It is a fact in our nature that there is a general and involuntary tendency to truth and consistency, except where the mind is resolved upon concealment. An apparently slight circumstance in the conduct of Houseman, his accomplice, led to Aram's conviction and execution. About thirteen years after Clark was missing, a labourer, employed to dig for stone to supply a lime-kiln near Knaresborough, discovered a human skeleton near the edge of the cliff. It soon became suspected that the body was that of Clark, and the coroner held an inquest. Aram and Houseman were the persons who had last been seen with Clark on the very night before he was missing. At the request of the coroner, Houseman took up one of the bones, and in his confusion dropped this unguarded expression, "This is no more Daniel Clark's bone than it is mine;" from which it was concluded that if he was so certain that the bones before him were not those of Clark, he could give some account of him. He was pressed with this observation, and, after various evasive accounts, he made a full confession of the crime, and, search being made pursuant to his statement, the skeleton of Clark was found in St. Robert's Cave, buried precisely as he had described it. Sellis, who, in 1810, attempted to assassinate the Duke of Cumberland, was a left-handed man; after having made his attack he cut his own throat, and the razor with which he committed the act was found lying by his *left* side.

"True knowledge," says Bacon, "is the knowledge of causes;" and in moral no less than in physical science, we can hope to discover the relation of cause and effect only by following the inductive process so successfully pursued in all other philosophical researches. But when the inductive process is concluded, we may test the truth of our conclusions by reversing our previous course of proceeding and reasoning synthetically, from cause to effect. If our judgment be correct, it must not only comport with, but satisfactorily account for, all the facts, however numerous, to the exclusion of every other reasonable hypothesis; and if the facts be rationally explicable by

more hypotheses than one, the true cause is manifestly not discovered. This is the master principle which governs every other principle, and every case of circumstantial evidence. In physical science, though the phenomena may be accounted for by more hypotheses than one, no prejudicial consequence follows from the uncertainty. It is known, for instance, that solar light consists of rays of three kinds, calorific, non-calorific, and chemical ; and the constitution of light may be accounted for equally well, by the supposition that it is composed of three distinct principles, or that it consists of distinct rays, having different degrees of refrangibility.

Nor is it essential, in physical investigation, that any decided conclusion should be formed as to the *cause* of the phenomena ; whereas, in moral investigation, it essentially constitutes the only subject matter of inquiry, and erroneous conclusions are not merely harmless but fatally dangerous.

It is a cardinal and admirable maxim in Courts of Justice, where the subject of evidence is seen treated to the greatest advantage, always to require *direct* proof of the *corpus delicti*, and of every fact which goes to constitute the *corpus delicti*. For instance, in case of alleged murder, EXPRESS proof must be given of the fact of death, before any inquiry can be gone into as to its cause or author. This rule is borrowed by us from the Romans, those great lights in jurisprudence ; and the disregard of it formerly led to convictions and executions of murder, where the alleged victims have afterwards appeared, of which I could recount many singularly interesting cases.

Having thus excluded the possibility of mistake as to the cause of death, the next step in the proof of the *corpus delicti* is to exclude, by the method of exhaustions, as it were, the possible hypotheses of death from self-inflicted violence, accident, or natural cause ; and not until it is clearly established that no other hypothesis will rationally account for the facts can we adopt the remaining one of death from foreign violence. The discrimination of the several causes of death often involves the profoundest considerations of science, and belongs to the department of Medical Jurisprudence. But it appertains to that department of the subject of which I have undertaken to treat, to determine whether conviction of murder by poisoning ought ever to be permitted merely upon presumption, and without express proof of the administration of poison, whether by its discovery in the human body or otherwise. Some medical writers lean to the opinion of the sufficiency of this kind of proof, but the opinion of others, and amongst them that of Orfila, and the inclination of the

courts of law, is the other way ; and I think it more than probable, had Captain Donellan now been put upon his trial (whatever opinion we may form of his actual guilt), that the judicial result would have been different.

All scientific investigation leads to rules of art, which have been most accurately described to be "a collection of general observations, suggested by long experience, with respect to the most compendious methods of performing every different step of the process which the art involves."‡ There are "indolent discoverers," as Lord Bacon terms them, who, "seeing nothing but sea and sky, absolutely deny that there can be any land beyond them." If time permitted, we might satisfactorily deduce from experience and observation a series of rules, like so many moral safety lamps, for the conduct of the understanding in matters of controverted facts depending upon circumstantial evidence, calculated to lead to the formation of correct and exact judgment, and to leave no other source of uncertainty or fallacy than the possibility of error which, by an inherent necessity, belongs to every human judgment. Infallibility belongs not to man, and his strongest assurance must ever be accompanied by the possibility of mistake ; but the existence of society, no less than that of individuals, requires that we form our most important determinations upon conflicting and upon circumstantial evidence. Nor is the difficulty or uncertainty greater in this than in many other equally important subjects. No one has ever yet been able to define the line which separates lunacy from malignity, impunity from accountability. No chart has yet marked every sunken rock, and even the pointings of the needle are subject to disturbing causes, and cannot always save the mariner from shipwreck.

Too much stress is often laid, in the discussion of moral evidence, and particularly in cases of circumstantial evidence, upon unimportant discrepancies. *Variations* in the relations by different persons, in respect of unimportant circumstances, are not necessarily indicative of fraud or falsehood, provided there be substantial agreement. True strength of mind consists in not allowing our judgments, when founded upon convincing evidence, to be disturbed because there may be immaterial discrepancies which cannot be reconciled. Consider the vast inherent differences in individuals with respect to their natural faculties, and acquired habits of accurate observation, faithful recollection, and precise narration, and the influence of intellectual and moral culture, and it will not be surprising that we seldom

‡ Stewart, *Elements of the Philosophy of the Human Mind*, vol. i., p. 50.

meet with entire agreement amongst a number of witnesses, in all the collateral incidents of the same principal event. Such an agreement is, indeed, rather apt to excite suspicion of confederacy.

Instances of discrepancy as to the minor attendant circumstances of historical events are almost numberless. Lord Clarendon relates that the Marquis of Argyle was condemned to be hanged, which was performed the same day. Burnett, Woodrow, and Echard, all writers of good authority, who lived near the time, state that he was beheaded, though condemned to be hanged; and that the sentence was pronounced on Saturday and carried into effect on the following Monday. Some historians say that Charles I. slept at Whitehall on the night before his execution; others that he walked across the Park from St. James's to the place of execution. The place of interment of that unfortunate but faithless sovereign has been variously stated; the exact spot, we know, was verified a few years ago, and was the subject of a very interesting paper by Sir Henry Hallford. Charles II. has been variously stated to have embarked at Brighthelmstone and at New Shoreham. Baker's *Chronicle* and Whitelock's *Memorials* date the death of Pym in May, 1643, whereas he died in December in that year. Lord Clarendon says, "On August 29th the standard was erected about six o'clock of the evening of a very stormy and tempestuous day."\* In Rushworth's collection, it is stated to have been erected on the 22nd of August. Every one knows how variously the circumstances connected with the death of Hampden have been stated: not long ago his remains were exhumed, and afforded a remarkable confirmation of the accounts given by some writers by the discovery of his dismembered hand in a bag in his coffin. Hume, Robertson, and other historians, say that Mary, Queen of Scots, on the night preceding her execution, went to bed at her wonted time, and slept calmly for a few hours. Lingard says she retired to rest, but it was observed she did not sleep; her lips were in constant motion, and her mind seemed absorbed in prayer.

Notwithstanding these discrepancies, who ever doubted the existence of any of the main facts with which they are connected?

Mere *omissions* are generally capable of explanation by the consideration that the mind may be so deeply impressed by, and the attention so rivetted to, a particular fact, as to withdraw observation from concomitant circumstances. Omissions, however, sometimes proceed from wilful suppression. Grafton, in his *Chronicles*,

\* *History of the Rebellion*, vol. iii., p. 191.

published in 1562, in writing of the reign of King John, has made no mention of Magna Charta : our surprise is diminished when we remember that he was printer to Queen Elizabeth, and probably considered his silence complimentary to that arbitrary princess.

Upon the subject of this essay little has been written, and that little is scattered in many volumes—some of them not easily accessible. I have not affected to give a complete view of the subject, or to do more than trace a faint outline ; but I think I have shewn that the subject, in all its parts and bearings, is reducible to principle and system ; and if I have awakened or gratified curiosity, or agreeably filled up the brief space which I have occupied, my end will have been answered, and I shall be more than satisfied.

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## EXPRESSION IN MUSIC.

BY MATTHEW MACROSKELLES, MUS. DOC.

MARKET MOWBRAY !—Above all places commend me to Market Mowbray for an example of one of those towns peculiar to Old England which seem to have had no origin, no birth, but rose at once into a maturity that has suffered no decline ; one of those memorials of the olden time which, (like the vast piles of Stonehenge), has undergone no change, no new combination, no improvement, no alliance with the white, staring, stucco of modern buildings, but reposes in the solemn grandeur of the hereditary title, silent, solitary, and antique. As the traveller looks at the low, overhanging thatched houses, with the grotesque fronts chequered with the black inlaid timber, crossing and recrossing, like so many giant hieroglyphics, the small diamond-paned windows ensconced deeply in the imperishable blocks, he readily fancies the dark, oak-wainscotted parlour, mellowed in the light of that perpetual *chirioscura* so essential to the ponderous structure of Gothic architecture, the massive, unearthly, carved chairs, and all the fashions of those departed times, when the green-kirtled maidens busied themselves with no science but that of pickling and preserves, or threw their rosy fingers over the flying weft, or framed the varied threads of the magical tapestry. Market Mowbray is like an old tombstone with its half-effaced inscription of forgotten names with which the

present day has no connection ; all that combines the past with the present is in our fancy. There are no civic commotions, no political brawls, no nightly revels, in Market Mowbray : from January to January, silence and sobriety fill the streets. Not but there are periods of enjoyment ; there are "fairs holden" twice a year : but how different are the fairs of Market Mowbray to the riotings and debaucheries of such named assemblies in other places, where they degenerate either into a mere lifeless, miserable film of an ancient custom, or a monstrous idol of mammon, where even pleasure is deformed into pain ! Not so the fairs holden in this primitive borough ; there is the long line of white canvas stalls—a wilderness of sweets—the swains and buxom maidens, undisturbed by the impertinence of travelled beaux, give themselves up to all the innocent enjoyments and festivities of the time. Fairs should be consecrated to such old towns as Market Mowbray, sacred as the mysteries of Greece ; the profane company of fashionable puppies should be forbidden to interrupt the happy meeting of the simple-hearted country folks, who have worked and wearied from Michaelmas to Lady-day, with no other hope to cheer them.

Market Mowbray will never alter—it was never intended to alter : there are no gay suburban villas, no gay new-town to make an invidious comparison with the brick-and-wood houses of the old town ; there are no Bond-street shops to distinguish particular streets—the good tradespeople are satisfied to combine three, four, or five vocations in one, and expose hats, hosiery, fresh butter, and dried fish on the same shelf. But the good people are not less unique and admirable than the town itself. Barring some new comers and occasional visitors, they are a dull, dark, sober, "days-gone-by"-looking people, all native to the soil, and, like the ancient sybil, seem as if they could die only upon their own earth. All may be said to be in easy circumstances, inasmuch as their wants are seldom multiplied by novelty. As they do not conceive that the mind was ever intended for any other purpose than to administer to the bodily appetites, they escape the multiform monster, *nervousness* ; living and living by a species of regeneration, until they die, not of disease, but rather by a necessity. It has been said that the Serpent, in the form of a doctor, did once creep into the Eden of Market Mowbray ; one victim only paid the penalty of his credulity, and that was the parish fool.

But there is one evil which prevails even in Market Mowbray,—what place or person can be infallible !—one evil prevails ; and that is an almost insatiable curiosity. Busied so little in their

own affairs, and interesting themselves so much in the affairs of others, a stranger would suppose from the publicity of every transaction, however trivial, that the good people of Market Mowbray acted and thought with one mind, like the old church horologe by which they daily regulated their own time-pieces. So it was, that not an event could transpire, without the cause and the effect being known from gate to gate.

The first and most dreaded of this clique was the chaste Miss Martha Tibbs. A victim to the evil eye of curiosity, Miss Tibbs exercised a despotic rule over all the tendrils of the town; nor could a glance travel from eye to eye without being crossed by the dreaded shadow of this virtuous lady. Miss Martha was a most important person, she inhabited the "big house," where her maiden aunt had resided for half a century before her. The patroness and queen of Market Mowbray, she exercised a discretionary power, and had raised her circle to the enviable height of exclusives. She was a thin, tall, yellow-faced lady, who, in spite of the stubbornness of her crisp curls, that hung in wiry circles about her cheeks, would never consent to adopt a cap, "*it looked so old maidish*;" her flat, hard, mahogany-looking bust, shewed that she had little of the milk of human kindness; and her figure was rendered still more gaunt by her old-fashioned, short-waisted, chintz robe, which dropped over her feet. Her grey eyes were omnipresent, her long pointed nose would smell out the slightest error, while her tongue, like a right Toledo, seemed as if it must wound even the sheath that held it. But the accomplishments of Miss Martha Tibbs were of an order unparalleled in the history of Market Mowbray; for it is said that she could not only read and write, but even that she could play extempore on the harpsichord. It was Miss Tibbs's highest delight to collect around her the elite of Market Mowbray, and, while they were sipping their coffee or lemonade, to listen to some of her "touching airs," sometimes assisted by her dear Dr. Mellitongue and the voice of his supposed daughter, Miss Julia, who was declared to sing divinely whenever she sang in tune.

Things were in this state at Market Mowbray when one night—remembered long since for the terrific thunder-storm which shook to their foundations the tenements of age—a human being staggered into the Crown and Sausage, and appeared almost dead with alarm and exhaustion; as he entered the gate of the inn the wind howled still louder, the rain descended in Noachian torrents, the forked lightning (with one prong) followed his course, while the thunder rolled like—anything. The awful stranger seated himself

in the tap-room, and, lifting his head, called for a pint of ale and a pipe. He glewed his lips to the tankard, nor did he move his eyes from the foam until he saw the reflection of his nose, like a piece of red sealing wax, sticking at the bottom. He looked up and, fetching a long sigh, muttered "good," and, as the landlady turned round, she was startled by the appearance of two eyes that squinted so forcibly that they seemed to be always at cross purposes. Suddenly the stranger, (of course in *black*), made several inquiries as to the persons inhabiting the town of Market Mowbray; and having satisfied his curiosity he bowed politely to the landlady, called the maid, and requested, being tired, that he might "*go upon tick*." Are the sheets well *aired*?

The amiable reader must suppose a month at least to have elapsed since the arrival of the illustrious stranger at the Crown and Sausage and the period when he again appears, as a professor of music, in the sweet-smelling town of Market Mowbray. The imaginative reader must behold the celebrated Mr. Peregrine Peascod (for by that name was the professor distinguished) domiciled over the large bow-windowed shop of Mrs. Percy Peach, a very comfortable woman in her way, and who would never ding down her head to the best of them; "and why should she?" said the seductive Professor Peascod. Peregrine was a wise man, a second Talleyrand; he read at first sight the great characteristic of the Market Mowbrayians; and whatever they might say against pride, yet, from Miss Martha Tibbs down to the chambermaid of the Crown and Sausage, there was but one spirit—" *Marry, come up!*"

On the 15th of June, 18—, he paid his first visit to the charming Miss Martha Tibbs; he spoke of the weather, of the town, of the high, of the low, of Miss Tibbs. "I see you play." Miss Tibbs blushed till her eyes watered; he opened the piano, struck five octaves, and pronounced the instrument superb. Miss Tibbs was overreached, it was her soft part; she smiled, and, seating herself, played the overture to the "*Three Crows*." "*Beautiful, most beautiful!*" sighed Peregrine; "*what expression! 'it is the cause, it is the cause!' what an effect!*" Happy Miss Tibbs, and happier Peregrine! He awoke and found himself famous next morning, just as he heard the fair form of Mrs. Percy Peach turn in the tell-tale bed. From that day Peregrine was happy; his fortune rose with his celebrity; he was a great and, therefore, a grateful man: and, to acknowledge the favours of his patroness, he proposed a concert at the house of Miss Martha Tibbs, which should for ever immortalize her memory.



This unexpected, unparalleled circumstance filled with delight the good people of Market Mowbray, and especially all those who were to be admitted within the four walls of the high and virtuous lady patroness. Happy Peregrine! heroes only make sensations. Mr. Peascod was a nice-looking piece of pale-faced sensuality; his portrait was drawn by Mnemosini at full length; and, as the public papers, some months after this celebrated concert, advertised, under the cacaphonic title "Beware," that Peregrine Peascod was a young man of a *possessing look*, whose back was formed for coats of all sizes, whose feet fitted to any shaped shoe, whose head was equally accommodating, and who strived to get a character, but was nonsuited—he was a tall, short, no-sized, thin, fat, serious, funny, sleepy, always awake, good-natured, selfish person, who invariably asked after the children. Peregrine was a compound of mighty opposites, a riddle to the good people of Market Mowbray, but who was said to have nothing in him, when he was found out.

The evening of the concert advanced; the young ladies were surprised, charmed, delighted. There was Miss Jane Verismall, the three Miss Shrimpingtons, the two Miss Trumps, and the four Miss Crumps; and then the beaux were most select: there was Mr. Acteon Snaggs, a very *dear* among the ladies, Mr. Dominic Fox, Dr. Mellitung and his daughter, Miss Mellitung, and, though last, not least, Bob Salter, the wit of Market Mowbray, and who, it is said, had even once composed an ode, which treated of several subjects, such as negro flogging, the sublime in music, the price of soap, with some fine allusions to the *Fancy*. Bob Salter was an ingenious person; he was a virulent pundit, and had made considerable proficiency on the Jew's-harp, which he maintained was the instrument which David played on before Saul.

It was on the sunny morning of the 4th of July that the good and industrious people of Market Mowbray had scarcely opened their shop windows and rubbed up their *counterpanes* when, to their amazement, they observed the head of Miss Martha Tibbs voluminised and ensepulchered in her frilled night-cap, gently insinuated between the folds of the white window curtains: the circumstance was remarkable, and excited no little inquiry as to the cause of such a phenomenon, whether or no it proceeded from a mental solecism, or the more probable effects of green gooseberry pie. But through the day, what was their surprise to see the door of Miss Tibbs thrown wide open! a circumstance that had not been known since the death of Mrs. Margaret Tibbs, some fifteen years back. So it was: wide open was the door, and servants were seen

flying from window to window, and men with strange, uncouth-looking boxes, carried up stairs under the particular direction of Mr. Peregrine Peascod. The professor had exerted himself most diligently to secure a good and expressive number of performers for the forthcoming musical soir  e. There was Mr. Crook, the leader of the Shipney Church choir, on the clarinet ; Miss Tibbs on the piano forte ; Master Plunkett on the triangle ; Bob Salter on the drum, Jew's-harp, and ram's-horn ; Peregrine Peascod, leader, on the violin ; with the fortunate assistance of two itinerant musicians, one on the Pandean pipes, the other, a six-feet-two consumptive-looking man, to shake a cap and bells. The band was thought most complete, and from the morning rehearsals great things were expected. The evening drew on ; the performers were stationed, Peregrine in front, the clarinet at one end of the room, the drum, Jew's-harp, and ram's-horn at the other end, Miss Tibbs behind the leader, and the triangle stood by Miss Tibbs, to accompany her in "Those Evening Bells." The itinerants were placed behind a screen near the door, where also the refect  on was laid out. The happy hour arrived ; the ladies, dressed out quite smart, took their seats in a circle round the room. Dr. Mellitung prepared a short address on the Expression of Music, which he understood was the highest perfection of the science, that tones should be brought to as near a resemblance as possible of the thing expressed, that the sacrifice of melody was nothing compared to the natural illustration of either sounds, persons, or events ; Professor Peregrine confirmed the Dr.'s harangue, when Bob Salter here sounded a blast upon his ram's-horn, and begged the ladies to observe that the ram's-horn was not only the most ancient but most powerful instrument, since it had even blown down the walls of Jericho itself.

Peregrine then opened the concert by playing a little song, which he had composed for the occasion, in honour of Miss Tibbs, beginning with "Chaste Diana," to the tune of Lillabullero. Being finished they expressed their approbation most eagerly. The next piece was variations on the celebrated air of "Borborigmus" (by Squatz) on the clarinet. It is said that Mr. Crook lost his puff, though it was followed by much praise. The professor next gave an imitation of silence on the back of his violin, which was so much liked that he repeated it. "What a nice fiddle !" whimpered the eldest Miss Trumps. Peregrine smiled, and observed that it was a real Straduarias ; Miss Verismall begged to see it, for she declared she had never seen a *gregarious* fiddle before. Miss Tibbs then sang the "Minuet in Ariadne" to her own accompaniment. Delightful,

Miss Tibbs ! Several minor pieces followed, when Mr. P. announced that the next piece to be performed would be the celebrated overture to the "Siege of Algiers." Here he was particularly requested by the ladies Shrimington to explain what it meant. "The Siege of Algiers," replied he, "is intended to represent all the events, attack, siege, counter-siege, plot, counter-plot, commanding, fighting, dying, drowning, praying, and blowing-up of Algiers : it is the expression of music." "How nice !" said the ladies.

The violin then commenced *conbrio*, which excited much attention, as it was understood that the Dey of Algiers was thereby threatening destruction to the English fleet. Mr. Acteon Snaggs whispered to Miss Mellitung that he thought the Dey had but a tremulous voice for so ferocious a warrior, but which the Doctor overhearing, he declared that as the Dey must have been terrified, it was perfectly natural that there should be a quivering of the chordæ vocales, or vocal strings. Perigrine finished by a very effective slash of the bow across the strings, which Bob Salter said was a clever passage, and expressed that the Dey was in terrible swearing rage.

Whilst the audience were lost in admiration at the last vibration of the enraged Dey, full of wonder and alarm as to the result of this threat from one so every way qualified to execute it, Peregrine shook aloft his magical bow, and, giving a long tattoo on the piano, the whole band—violin, ram's-horn, triangle, clarinet, piano, bells, and pipes—should have struck up with one unanimous burst, but, for some reason not explained, the ram's-horn followed the violin, the bells followed the horn, the piano the bells, the clarinet the piano, and the pipes and triangle the clarinet, that it was at first supposed by the Miss Trumps, that the English were in suspense how to proceed. Every one worked full drive after the other, shewing the eagerness of the debate : at length the furious notes expired, when the Miss Trumps, all eagerness, requested to know the result of so furious a discussion. Discussion ! screamed the heated Miss Tibbs, it was no discussion ! What then, pray ? said the ladies. What then ! reiterated Mr. Crook, puffing like a Grampus—why the English were cannonading the town and batteries to be sure. Nonsense ! smiled the incredulous Miss Trumps, Dr. Mellitung stared, Mr. Crook stared, Miss Tibbs stared, the man with the bells stared, every one stared but Bob Salter, who begged to inform the audience that the next part of the overture was a solo by himself on the drum ; the meaning of which was that the English prisoners were having the *sack*. Bob played so rapid and so

loud that the audience were undetermined whether to clap their hands or stop their ears ; but as Miss Tibbs cried beautiful ! they all cried grand !

The last replication of the sounds died away, when the bells, Pandean pipes, and triangle, were desired to be in concert ; Peregrine requested them to throw as much supplication as possible into their instruments, in order to signify that the Christian prisoners were offering up prayers for success. " Beautiful !" whispered Miss Mellitung to Mr. Snaggs ; " what a consolation under such trying circumstances !" " Very," said Mr. Snaggs. The three performers began with sounds " most musical, most melancholy ;" but as the Pandean pipes decidedly had the advantage in sound, the bells, not to be outdone, shook with such a rapidity that, had not the triangle and the pipes quickened their motions, they must soon have been left behind ; a steeple chase followed, the bells, of course, first, when the clear, shrill blast of a horn silenced them all at once. " It is a flag of truce," said the rejoicing voice of the eldest Miss Shrimpington. The horn sounded again, when, instead of the presence of the turbaned Turk, on rattled the London Mail !—Then the ladies laughed, the gentlemen laughed, all laughed ; Bob Salter said the herald knew how to sound his own trumpet, and then he laughed. Silence being restored, the ladies blew their noses and shifted themselves into a more easy position. Bob Salter said he should feel much pleasure in complying with Mr. Peascod's request in introducing a little variation, especially as it was perfectly consistent with the naval character of the overture ; it was an imitation of the boatswain's whistle on himself. He then sounded so shrill and piercing a note, long drawn out, that it was even suspected he must have had the instrument itself. There was something so exhilarating in the sound to the inland ears of the audience that he was requested to repeat it : he blew louder and louder still, so that Miss Pinkinton, an old maid, stone deaf, ejaculated " Sure it must be a rough night." " What a compliment !" said Miss Tibbs. Mr. Crook put his clarinet to his lips and, fetching his breath hard, blew a long series of sighs. " The surgeons have too much to do, is explained by that passage," said Peregrine. " That is quite a novelty," said Dr. Mellitung. Bob Salter then struck one, two, three, distinct blows on the drum, which the Miss Shrimpingtons supposed was some signal of distress, but were informed by Mr. Peascod that two post captains and a private were killed. " Two captains !—dreadful !" said the Miss Shrimpingtons. Mr. Peascod particularly directed the sympathetic attention of the ladies to the next solo, by the man

with the cap and bells, who began pianissimo, then exchanging from andante to allegretto, until at last he was obliged to loosen his cravat, from the fear of suffocation. "These are the groans of the dying," said Miss Tibbs. "Shocking! delightful! poor creatures!" murmured the ladies; while Dr. Mellitung entered into a long harangue on the necessity for *pensioners*. This was a highly satisfactory performance, and was much applauded. The interest was awakened, the sympathies were warm; Mr. Crook, quite at home, broke forth into the tune of "Lo! he comes, in clouds descending," in which the whole audience joined, not aware that it was the Algerine hymn from the Dey's seraglio: the mistake was natural. "Where could they have learnt that tune?" said Miss Crump. "Of course, in Shipney Church," said Mr. Crook. "How singular!" said Miss Crump.

Miss Tibbs began to look rather blue at having hitherto had so little to do: she settled herself before the piano; in one wild run she swept the trembling keys—octave after octave, semitones, demi-semitones, quavers—most brilliantly; and Peregrine, wishing to shew that he understood it, kept time with his fiddle. The English then take the city to the tune of Drops of Brandy, when the whole band struck up a voluntary for the shout of victory. There was no mistaking the result—piano, horn, violin, drum, triangle, clarinet, rung forth the wild hurrah! A deafening applause followed. Miss Tibbs was so delighted that she would have had the finale repeated, but that it struck her she had not of late seen the ugly hungry faces of the itinerants obtruded from behind the screen. She therefore desired Mr. Peregrine to bid them prepare. She touched the keys,—"What's the matter?—Gone! The rascals!" screamed Miss Tibbs. "Gone!" echoed the surprised assembly. "Yes, gone!" screamed Miss Tibbs from behind the screen; "Oh my silver spoons! Oh my silver baskets! Oh my silver fruit knives! Oh, Oh!" "You don't say so!" said Mr. Acteon Snaggs. "Oh that I should be such a fool!" cried the bereaved Miss Tibbs, wringing her hands over the sad remnant of knives, forks, and plates. "Concert indeed!" "Calm yourself, my dear Miss Tibbs," said the soothing voice of Dr. Mellitung. "Don't dear me," said the infuriated Miss Tibbs; "you! you! why don't you all run after the villains, and not stand staring there? I am ruined, totally." As the disconsolate lady gave utterance to her griefs, Professor Peregrine Peascod slunk out of the room, the ladies hastily departed, the gentlemen fled.

The morrow's sun smiled in vain on the fallen hopes of Peregrine: he felt, like Francis, that all was lost save his honour. In vain he

struggled ; the rage for music fled with Miss Tibbs' spoons ; he sighed as he sat in the bow-windowed parlour ; yes, he must abuse what he could not much longer use—his credit. Borrowing dulls the edge of husbandry ; but I am too sharp, said Peregrine, and therefore can afford to get a little *blunt*.

Lightnings and storms do harbinger events : Professor Peregrine Peascod's first visit to the Crown and Sausage was commemorated by that night's awful tempest. The sun threw his last golden beams over the gloomy tabernacles of Market Mowbray as poor Peregrine bade a silent adieu to his friends, and, striking out of the public road into the woodlands, pursued his solitary way.

Poor Miss Martha Tibbs ! she felt relieved by the sufferings of the good tradespeople who had silvered the pockets of Peregrine Peascod. She lived to get older ; but, it is said, she never heard the sound of a bell but it “ opened all the cells where memory slept,” when she muttered a hasty curse against the name of Peregrine Peascod and the “ Expression of Music.”

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## ON THE PRESENT STATE OF THE OPERA IN LONDON.

(*Continued from page 48*).

IT is due to the high and extended reputation which Rossini has acquired, to allow that his works deserve a prominent place in every theatrical establishment in Europe, although it may at the same time admit of doubt whether his merits have not been somewhat over-rated. He was not possessed of sufficient application to render him a scientific musician ; consequently, where the situation will not allow of a pretty melody with marked rythm, he has recourse either to forced modulations and abrupt transitions, or he will be found to cause weariness by sameness and repetition. He likewise fails in imparting to his several personages a distinct character. His bass songs are as full of roulades as those for the soprano ; and transposition would not unfrequently render them suitable for any description of voice.\* The origin of the very florid style which

\* The celebrated Frederick Schneider, composer of the *Deluge* and other oratorios, has the following observations on the subject :—“ As dramatic mu-

prevails throughout his works, is commonly ascribed to the circumstance of his having heard one of his own airs so metamorphosed by the ornaments of Veluti, that he did not recognize it as his composition. It is, however, sufficiently obvious that every attempt to render vocal music so florid as not to admit of further embellishment must necessarily prove futile. No better illustration of this fact can be offered than Rossini's two songs, *Di tanti palpiti* and *Una voce poca fa*, which have frequently, as performed by first-rate Italian singers, no further resemblance to the original airs than that which the rhythm and the harmony afford. On the whole, although some of Rossini's melodies are charming, and his acquaintance with the powers of the human voice undeniable, I freely confess that I think he is indebted for no small portion of his reputation to the prevailing ignorance respecting the works of his predecessors. From these he has borrowed, to use no harsher term, largely, without being able, in many cases, to put in the plea of having improved or followed out an idea casually dropped by an inferior author who might himself be incapable of doing justice to it. Cimarosa and Paer have suffered more than almost any other authors, with whom I am acquainted, from the depredations of the popular maestro. Indeed, on hearing an opera by Paer performed in Germany, I could scarcely succeed in convincing myself that part of the music was not to be ascribed to Rossini. It is, however, only rendering justice to Paer, to affirm—which I am enabled to do from an intimate acquaintance with his principal works—that, while in beauty of melody and pathos he is fully equal to his imitator, Rossini, he far surpasses him in correctness of modulation, propriety of instrumentation, and in the power of imparting a distinct character to his different personages. In comic writing he is, undoubtedly, inferior: indeed, in this style of composition, Rossini is unrivalled, even by his great predecessor, Cimarosa.

If, with Dr. Crotch, we maintain that success in every style

sic has to depict the passions and feelings of the persons in the action, an exact delineation of character becomes one of its essential requisites. There are, indeed, operas which, with regard to melodic and even harmonic treatment, and consequently in a musical point of view in general, are entitled to high praise, yet which nevertheless cannot be called genuine dramatic compositions, because they are wanting in the musical delineation of character just spoken of. The most glaring transgressions against this requisite, amidst others of a different nature, are to be found in the works of Rossini. With him every person in the piece sings alike, let the situation be as different as it may."

(keeping the ornamental in due subordination) is the test of a great composer, then will Rossini assuredly not fall under that honorable appellation. His element is the flippant, the playful, the light : he is occasionally sentimental, but never rises to grandeur, still less to sublimity. Had he possessed the power of raising emotions suitable to sacred subjects, *Mose in Egitto* would have afforded him an opportunity of treading in the steps of the great masters who had previously handled the same theme. This drama contains scarcely a movement calculated to produce devotional feeling : it is cast in the same mould, and is made up of the same ideas, as his secular works. Many of the airs, duets, &c., are exquisitely beautiful, and would have been entitled to unqualified praise had they been employed to illustrate a less lofty theme. Of the choruses, I confess my inability to discover any one which is deserving of the eulogium bestowed by an ingenious author\* who describes them as "profound and majestic." He cannot surely allude to *All etra, al ciel*, the subjects of which are borrowed from the hunting scene in the finale to Winter's *Calypso* ! The effect of the genuine oratorio chorus depends on the contrapuntal treatment of the vocal parts. Haydn and the modern German school rely more on ingenuity of instrumental writing. Rossini has employed neither of these resources ; common chords, unisons, and unmeaning instrumental clamor form the staple of his choruses, which are in reality unworthy of the name. Even the celebrated *Preghiera*, so often misnamed sublime, is, in fact, merely a pretty cavatina and quartet in the common-place Italian style ; nor can any thing be less appropriate to the solemnity of the words than the triplet accompaniments and the affected accentuation on the second syllable, in which Italian singers so much delight. Thus does Rossini treat every subject, not according to its own peculiar character, but as a mere vehicle for his one-sided ideas. How immeasurably superior a power over the feelings must that composer exercise who is master of every style—who can pass from grave to gay, from the pathetic to the sublime ! how far more noble must be his genius, how far more deeply must he have penetrated into the secrets of his art ! Rossini is never serious ; he is neither thoughtful himself, nor is he capable of exciting thought in others ; he is a trifler who never penetrates below the surface. What a contrast is presented between the *Preghiera* and the chorus of Egyptian priests in the *Zauberflöte* ! The latter is in the true church style, yet no composer more excelled in the ornamental than

\* Mr. Hogarth, *History of Music*, p. 392.



Mozart. Still more striking is the contrast between Rossini and Handel; Rossini, even when attempting to be serious, relapses involuntarily into mannerism. Handel composed the sublime double choruses, *I will sing unto the Lord*, and *But the Waters overwhelmed*, with as much ease as the delicate and finished songs, *Hush, ye pretty warbling Choir*, and *Let me wander not unseen*, which remain to the present day models of grace and elegance. How must this universal dominion over the powers of sound throw into the shade the petty talent of him who, when he attempts a lofty theme, relapses involuntarily into the manner only suitable to a comic song. A mode of treatment like this is ever the result of incapacity for higher efforts. Let us, therefore, pause before we acknowledge the doctrine originally promulgated by the Italians, and unfortunately followed by too many of our own writers, that each successive composer is necessarily an improver; that he who violates an established custom is a reformer who has the merit of exploding some antiquated prejudice; that he who opposes the exclusive study of the latest fashionable composer is a bigot, unable to keep pace with the improvement of the times. While maxims such as these meet with toleration, while criticism remains either an echo of public opinion or an expression of individual taste, so long will the majority continue in their present state of ignorance, indifference, and presumption. The dissemination of these ideas is greatly favoured by composers and instructors, whose interest it is to represent the masterpieces of ancient writers as no longer adapted to the exigences of the present day, because attention given to these would withdraw patronage from their own compositions: it would also have the effect of imparting a greater ability to criticise, which might possibly be productive of invidious comparisons. If self-interest be thus alert in the propagation of error, the advocates of truth should arouse themselves to increased exertions in endeavouring to counteract this pernicious influence.

No composer has ever been so highly extolled by one party and decried by another as Bellini; his advocates maintaining that he combines every possible excellence, while his opponents do not allow that he possesses merit of any description. The first party consists principally of those whom Von Raumer calls "the musical multitude;" among the latter may be reckoned most of the eminent professional musicians of England and Germany. Neukomm declares that he was unable to endure the representation of *Norma* longer than a quarter of an hour, and the celebrated theorist, Schnyder von Wartensee, characterizes the *Puritani* as a spiritless composition,

totally devoid of life and power. The existence of this discrepancy concerning a composition whose merits and defects are equally palpable, clearly demonstrates how little the philosophy of music is yet understood. Neither can any great weight attach to the opinions of the majority of professional persons. Dr. Crotch justly observes that the education which they usually receive is calculated to give an undue bias in favour of the particular school in which they have been trained, rather than to impart a correct, comprehensive, and impartial judgment of music in general. In fact, the philosophy of music receives so little attention in a mere professional education that, in many cases, it may be fairly questioned whether the verdict of the public may not be preferable to the more prejudiced decision of the musician.

Musical criticisms have not been hitherto conducted on the principles universally applied to the other arts. Individual taste is here permitted most unaccountably to usurp the place of rules based on the broad foundation of the natural laws, in accordance with which music holds dominion over the feelings. An opera containing a pretty cavatina, a showy chorus, and an *aria di bravura* well calculated to display the powers of the prima donna, will certainly become popular, although the rest of the music be worthless, and the whole unconnected and ill adapted to the subject. Were an opera considered in its true light, as a *work of art*, it would be at once evident that beauties so trifling should hold no more sway over the decision of the critic than a well-drawn ornament or gorgeously-coloured robe would influence his judgment respecting the merits of an historical painting. In the higher branches of the pictorial art, neither excellence of execution, nor skill in detail, nor the union of Dutch minuteness and exquisite finish with the splendour of Italian colouring, can compensate for poverty of invention, or atone for the violation of historical or natural truth. Now, the aim of an opera and that of a painting of the higher rank being identical—in the one *sound* constituting the illustrating medium, while in the other it is *form* and *colour*, the end of both being to pourtray the workings of human affections, passions, and sufferings, whether the example be drawn from history, or whether it be presented in the guise of an allegory or of an imaginary plot—it follows that, however beautiful and attractive detached portions of an opera may prove in themselves, yet if the whole excites emotions inconsistent with the object of the poem, or is calculated to neutralize the legitimate feelings which the passing scene ought to inspire, although these parts may be successful in affording amusement, yet the *work*

of art fails to accomplish its own lofty purpose—that of imparting instruction. These sentiments will doubtless occasion surprise to many in this country, but that it is possible to render music a medium of moral culture may be demonstrated both by argument and fact. At Berlin the opera not only constitutes a school of art, but is likewise considered a powerful mode of moral cultivation ; whereas in London its highest aim is an exhibition of vocal skill. The truth of the assertion of a German critic, that an opera by Gluck is more favourable to morality than one by Rossini, will not be controverted. Music is now admitted to exercise a more powerful influence over the feelings than painting, sculpture, or even poetry : if, then, the highest virtue and the utter degradation of vice receive the same musical treatment, if the most fearful crimes are recited and acted to light and sportive measures (the natural expression of gay-hearted innocence), this abuse of the powers of the art must inevitably lead to a confusion in the feeling of right and wrong ; the association of the music with the action will produce a permanent impression. It is futile to assert that music can never influence belief or change opinion ; man is a sentient as well as a reasoning being, he acts as frequently from impulse as from conviction. The general diffusion of modern Italian music among the people would probably tend to lower their moral character in the same degree that a familiarity with that of Gluck and the classical German composers would conduce to its improvement. In the operas of Gluck, the boundaries which separate right and wrong are clearly defined, the *feelings unconsciously side with the judgment* ; in the modern Italian school, the allurements of sense too often triumph over the mental and moral faculties. When Gluck drags before us Orestes tormented by the furies, we feel under the same spell as when perusing the history of the fate-pursued monarch in the immortal pages of the Greek dramatist ; we become enveloped in the dark unwholesome atmosphere of crime ; we labour under an insupportable oppression, and long to escape. The same tragic power, although on a subject less revolting, is displayed in his opera of *Ifgenie en Aulide*. Nor is the master's regard for truth less conspicuous when he depicts peace of mind and calm content by a sweet and soothing andante or a sustained and lofty adagio ; such passages will ever remain among the finest specimens of pure musical beauty which the art affords. In no instance does he sacrifice expression to a love of display in the singer, or to a vitiated taste for ornament in the audience. Thus did this great musician constantly aim at and attain the highest object of art, that of rendering virtue attrac-

tive and vice abhorrent to the feelings. How widely different the course of modern Italian composers, has been demonstrated in speaking of Rossini.

The glaring absurdities of Italian operas, especially as conducted in this country, have proved a main cause of the hostility or contempt with which English writers have almost invariably treated music. Ignorant alike of the art and the science, and incompetent to form a judgment on the *whole*, they naturally drew their conclusions from that part which came under their immediate observation ; now an opinion formed concerning a whole, deduced from a part, will rarely prove correct. The literary men of Germany, on the contrary, whether personally conversant with music or not, always treat the art with due respect, because they have witnessed its beneficial effects. Wyndham self-complacently vindicated his own distaste for harmony by the assertion that four of England's greatest men (of whom Pitt was one) had been insensible to its charms. *En revanche*, I may cite Klopstock, Schiller, Goethe, and the two Schlegels, men who, in true greatness, far outweigh any name adduced by the British statesman. Authority, however, has but little weight in permanently determining the rank which an art or science is entitled to hold in the scale of knowledge ; a satisfactory result can only be obtained by a consideration of the mental faculties which it calls into action. Although the estimate might raise the character of music to a higher rank than even its warmest admirers dream of, the present is not a proper time for such disquisition. My object has been to elucidate, in some degree, the principles which ought to guide true musical criticism ; cotemporary popularity should not be for a moment admitted as evidence of merit, and all great works must be not only technically correct, but also written in conformity with every æsthetical requisite.

In the compositions of Mozart, Cimarosa, and other writers of the same school, melody and harmony, the vocal parts and the instrumentation, are so intimately blended that it would be difficult to apply praise or censure to the one without involving the other in the same sentence. In the *modern* Italian school, on the contrary, the air and the accompaniment are so independent of each other that no task can be more easy than to analyse their respective merits. The distinction is also equally well marked between the theme and its treatment. The neglect of adverting to this difference of character in the two schools will sufficiently account for the opposite conclusions at which critics have arrived respecting the merits of productions so universally known. The following remarks

may possibly meet the views of each party, and thus lead to the settlement of this much-disputed question.

Several of the melodies of Bellini may be classed among the loveliest that ever flowed from musician's pen ; clear, graceful, and vocal, and particularly adapted to the kind of voice or even individual singer for whom they were written, and combining, in many instances, the character of recitative with that of the genuine opera. The performer appears to be declaiming rather than singing, as in *Vien diletto* (Puritani), and in the first part of the duet *Il rival salvato*. Who that has heard Malibran or Grisi give utterance to the impassioned strain of joy and thanksgiving, but will feel the thrilling effect of the energy which the master has thrown into the melody. Bellini is here truly dramatic, and displays genius of no common order. Had his scientific attainments equalled his natural abilities, his works might have ranked with the first productions of the present day ; unfortunately, however, his education and training were lamentably defective. According to the pernicious custom universally prevalent in Italy, Bellini had been introduced exclusively to the works of his immediate predecessors, or, to speak more correctly, his musical acquaintance was confined to Rossini. From a model of this description it was not probable that he would acquire either contrapuntal correctness, skill in managing a subject, variety of modulation, or effective and clear instrumentation. As in literature a good style is not to be acquired by the imitation or exclusive study of *one* author, so in music the power of producing original ideas with the connection and coherence requisite to form a great work cannot exist without an extensive and intimate acquaintance with the sacred and the secular works of the greatest masters. To the neglect of this maxim may be attributed the paucity of really original productions : modern composers have played some of the flimsy effusions of their cotemporaries, studied the rules of thorough bass, and they imagine that inspiration will accomplish the rest. The biographies of Handel, Bach, Haydn, and Mozart, show how different was the course pursued by men possessing the highest natural genius, men whose names are immortal : of the works of these master spirits, with perhaps the exception of a few of Mozart's songs, Bellini was evidently ignorant. Neither in the Italian conservatorios is the inferiority of the examples atoned for by a judicious and profound study of the principles of harmony. From these causes may be traced that one-sided acquaintance with the art displayed in his works ; hence arises his inability to treat a serious subject in an appropriate, sustained, and lofty style. The two princi-

pal defects in his style are *repetition* and *want of purpose*. His theme is invariably repeated in the same key, without any other alteration than increase of noise in the accompaniment, until the pleasure of the hearer becomes converted into weariness. On resolving to leave it, he presents us with commonplace phrases not bearing in the most remote degree on the original idea, wanders at random through various keys, pauses, then returns without preparation to his first melody, which he again repeats *usque ad nauseam*. The accompaniment consists of the chords of the key-note, dominant and subdominant, first piano and in crotchets, afterwards increased to forte, with the whole power of the band; the wind instruments are employed on every occasion, and generally inappropriately. That each instrument possesses a character peculiar to itself, and is intended for a separate object, he appears not to suspect; they are by him employed *en masse*, and with the sole aim of producing noise. Modulation he scarcely attempts, for to apply that term to the desultory wanderings already described would be an abuse of language; neither can I recollect an instance in which his vocal subject is answered by any corresponding idea in the instrumentation. Bellini resembles an orator who, instead of bringing argument and illustration to support an assertion, contents himself with a repetition of the same idea in different words. The repetition of the first two or three phrases towards the conclusion of a song produces, undoubtedly, a good effect; but the repetition of the whole of the first part is intolerable, and can only proceed from want of science. Nor can it be pleaded in justification that Handel and the Italian composers of his time always employed the *da capo*, because those great masters scarcely wrote three successive bars in the same key. The *da capo* is, moreover, one of the usages which Gluck (the great reformer of the opera) exploded as inadmissible in dramatic music, and every good composer for the stage has since trodden in his steps, adapting the music to the situation, action, or passion, which they undertake to illustrate.

Bellini is the first who has openly set at defiance this maxim: he has no plan, no purpose, no gradual rise of the music corresponding to the development of the plot, no finale in which the composer concentrates his powers to raise to its acme an interest well-sustained throughout, although varying in character with the passing scene. Had Bellini been requested to render a reason for his choice of the particular vocal passages which he appended to the original theme, his only reply could have been, to suit the singer. In the majority of instances, almost any other, in the same key and the same time,

would be equally appropriate: this circumstance sufficiently accounts for the great liberties which singers take with his text. To alter, add, or omit one note in an aria of Mozart, would be, not only to change its character, but, probably, to render it grammatically incorrect. With Bellini, on the contrary, it is a matter of chance whether the music is improved, or the reverse, by the alteration. What object had he in view in inserting, according to his constant practice, a noisy instrumental symphony between the phrases of his most tender and plaintive songs? The answer would properly be, that he wrote the first passage that occurred, regardless whether its effect would be to strengthen or destroy the impression suggested by the poem, and faithfully rendered by the vocal *motivo*. In regard also to the precise moment of adding the usual Italian close to a song, it would be vain to seek a reason in its connection with the preceding passage, because this connection can rarely be found to exist. When Mozart, Cimarosa, and Paer, introduce analogous passages, the reason and the object are alike conspicuous, the one to follow out the course of a composition, the other to express a feeling with propriety. Were some ruthless hand to expunge three or four of the preceding bars, and then add the finale, the absurdity would be instantly detected by the judicious auditor. With these composers every successive bar appears to be a *consequence* of the last, and the entire composition presents the result of a scheme carried into execution with a degree of success dependent on the propriety of the means employed for its accomplishment.

It is, however, possible that Bellini might have a plan in view, although its nature is not obvious: if he had, it has terminated in producing a certain number of arias, cavatinas, and duettos, each adapted to the respective singers, and pleasing to the public taste. That some of these are appropriate and dramatic has been already admitted, or rather that the theme is dramatic, its treatment irrelevant. Were it possible to invent a series of *motivi* suited to every situation in the poem, it is certain that these would form, not an opera, but a succession of ballads: it is evidently an equal misnomer to dignify with the title of *OPERA* a series of pieces composed of a subject frequently taken at random (though sometimes strikingly beautiful), repeated until the composer himself becomes weary, of noisy instrumental passages, and vocal flourishes selected from the newest collection of *solfeggios*, and terminating by the recapitulation of the whole of the first part, to which is added the "favourite finale." In short, the character of Bellini's music is essentially undramatic, and the manner in which it is performed and listened

to by his countrymen is a striking confirmation of the correctness of the assertion. To the chorus, the orchestra, and the inferior performers, they are totally indifferent; on the appearance, however, of the prima donna, or primo tenore, the audience are hushed into attention, not on account of the dramatic situation, but to catch every note of their roulades and cadences; they are absorbed, not by pity for Elvino or Amina, but by admiration of Rubini and Malibran. The principal singers, however, requiring occasional repose, chorusses, &c., are inserted between the songs, in order to fill up the time; and if they may be said to receive as little attention as the music between the acts of a play, it must be confessed that they have frequently no greater degree of connection with the solos which they precede or follow.

The assertions contained in the *Edinburgh Review* for April, 1836, in a notice of Hogarth's excellent *History of Music*, afford an opportunity of examining certain fallacies too generally received on this subject. The reviewer, after observing that he does not concur in Mr. Hogarth's sweeping condemnation of the modern Italian school, supports his opinion in the following manner:—"Bellini's operas are not merely to be examined on the face of the score, but to be judged of, like a well-painted scene, by their effect on the audience. \* \* There are few of those critics so acute in finding out errors in black and white who would be able to detect them in the course of the performance. Amidst scenes of deep interest, such as Bellini has represented, they are seldom, if ever, observable; and where it is otherwise, it appears to us that we have no more to do with the original score than with the paper on which it is written." I would, in reply, beg to refer to an assertion made in the former part of this article, that to a musician the score and its performance are one and the same. What rational person would find fault with a score, except on account of the effect which he knows will be produced by its performance? Suppose that he discovers the same subject repeated several times in the course of a song, without any variation except an increase of noise in the accompaniment, he feels confident that this reiteration must have the effect of palling upon the ear. Suppose, on the other hand, that he hears the song without having previously seen it on paper, the repetition of the melody in the same key is equally wearisome; whether, therefore, he blame the song or the score, the result is the same. It may, however, be politic in an advocate for the modern Italian school to endeavour to deter his readers from an inspection of the scores: what a mass of confusion do they exhibit! It has been a



subject of astonishment how some of them could be performed at all. The advice tendered, to judge of the operas by the effect which they produce on the audience, is likewise judicious, inasmuch as they have generally the undeserved good fortune of being sung by the finest vocalists in the world; under such circumstances, it may be confidently asserted that, in the present state of public taste, the composer is secure of obtaining a share of the applause which in justice belongs solely to the performer. Thus, the argument which the reviewer founds on their extensive popularity, cannot be supported until he produces a public capable of estimating the intrinsic merit of an opera *independently of the manner in which it is performed*. The Germans approximate far more nearly in this respect to a perfect taste than either the English or the French, yet in Germany the partisans of Bellini form but an insignificant minority. I have been present at the performance of the *Somnambula*, at Frankfort, when the audience did not exceed fifty persons (either *Robert le Diable* or a classical opera of any school would have filled the house), and expressions of disapprobation were certainly predominant, although the performers might be considered favourites. Even in England we are not without proof that the popularity of Bellini may be ascribed rather to the performance than to the composition. When the manager of the English Opera House has endeavoured to introduce either the works of that composer, or any other of the same school, the experiment has invariably failed. The reason is obvious: the singers, although competent to do justice to music of every style, were not in themselves sufficiently attractive to counterbalance the want of interest in the music, which, when left to its intrinsic merit, encountered the neglect it deserved. Again, if it were actually the composition which affords so much delight to the frequenters of the Italian opera, it is difficult to conceive why Balfe's *Siege of Rochelle* has attracted so small a share of notice in aristocratic circles. This opera contains airs in the style at present so much in vogue, while the excellence of the concerted pieces renders it, as a whole, superior to any production of the modern Italian school; yet it will never acquire the same degree of popularity as the trash which has been introduced to the notice of the fashionable world by the splendid talents of Grisi, Rubini, Tamburini, and Lablache. Let the most contemptible opera ever composed be assigned to this gifted quartett, and behold how the praises of the *composer* will be instantly blazoned abroad by the opera house critics!

The question is not, however, whether there are, or are not, indi-

viduals to whom the works of our author afford pleasure ; admitting the admirers of Bellini to be numerous, what do his advocates gain by the concession ? Inferior poetry, indifferent paintings, have been applauded by the public ; why, then, should music be the only one of the fine arts in which we are to bow slavishly to the verdict of the uninformed ? Common chords, either entire or divided, wind-instrument passages in thirds and sixths, are sounds naturally pleasing ; and as those who have never seen good paintings are delighted with the gaudy colours of a worthless daub, so thousands who flock annually to the opera with ears inexperienced, save in the tinkling of their own piano forte, or the squalling in the parish church, are enchanted by the brilliancy of the orchestra and the sound of delicious voices, unconscious of the inanity or inappropriateness of the strains thus emphatically rendered. Let our author have the benefit of every concession not inconsistent with truth ; but it will be found impossible to invalidate the position that the redeeming traits scattered over his operas are inadequate to counterbalance their glaring musical and dramatic deficiencies, or to establish their claim to the title of *works of art*. To gratify the idle caprice of a modern Italian audience, Bellini scruples not to sacrifice all consistency, all truth of keeping, to transgress dramatic propriety, and to disregard the dictates of common sense. Were a sculptor to represent a Jupiter or a Hercules with the slender limbs and elegant proportions of an Adonis, he would not sin more grievously against nature than the musician who clothes the most vehement of passions and emotions in languishing and effeminate strains.

The musician escapes the imputation of ignorance in his own art which, in a parallel case, would undoubtedly attach to the sculptor, because the public are at present less versed in the principles of music than in those of the imitative arts. The execution of the statue might gratify the eye in the same manner as a pretty though inappropriate melody would please the ear, but the mental faculties would, in each instance, feel revolted. Blunders such as these will meet with toleration, if not with applause, as long as the sensual gratification of the ear is regarded as the sole aim of music. Let the art of *sound*, like those of form and colour, be universally recognised as a legitimate object for the employment of the mental faculties, then will music command that share of respect which has been accorded, in all ages, to sculpture and painting. Let those who are conversant with the subject never shrink from exposing the absurdities and errors committed by musicians—let them shew that they proceed from a deficient understanding of the first princi-

ples of their art ; thus will they effectually deprive the enemies of art of their favourite sophism, which would represent such absurdities as inherent or essential features of the subject of their ridicule. With this view I proceed to examine the *Somnambula*, dwelling not on trifling blemishes only to be detected by a hypercritical observer on a minute inspection, but directing attention to its essential characteristics.

This opera may be pronounced, on the whole, the *chef d'œuvre* of Bellini ; a degree of animation and vigour seems to have inspired the composer of the dull and insipid *Anna Bolena*, *Norma*, and the *Capuletti*, operas which can scarcely lay claim to the merit of containing a melody worthy of remembrance. In the *Somnambula*, on the contrary, almost every melody, if not original, is beautiful ; many of the chorusses are effective : yet we look in vain for a good concerted piece. But, although this opera is tolerably successful in amusing the ear, it fails completely in satisfying the mind ; it abounds with the usual sacrifices of sense to sound, and some of the tenderest songs are disfigured by noisy, unmeaning instrumentation.

An enlightened critic has commented on the absurdity of representing the susceptible and intellectual Amina under the influence of an attachment bordering on infatuation for the repulsive and jealous Elvino. The reproach is just ; Elvino, who is unable to obtain the sympathy of the audience, cannot obtain that of the heroine without lowering, in some degree, the estimate which the hearer had formed of her intellectual powers. Is it inquired by what means this sympathy might have been obtained ? A detailed reply would, at present, lead me too far ; let the inquirer diligently study Mozart, and he will be speedily enabled to answer the question. It is probable that the intention of Bellini was to render the character of Elvino one of deep interest ; in this case no failure could be more complete : were such not his purpose, he must have speculated largely on the indulgence of the public, in presenting them with an opera in which one character only is possessed of the slightest attraction. But of Amina we are scarcely yet capable of forming an impartial judgment ; Malibran, by her incomparable acting, shed a lustre and an interest over this part of which those who had only seen it in other hands would not have deemed it susceptible. It is also necessary to recollect that the music, as sung by this highly-gifted woman, bore frequently but little resemblance to that which Bellini had written, and displayed, in numerous instances, far superior powers of mind. In justice to the composer, I must here mention the Cavatina *O love ! for me time's power*, as

equally beautiful, dramatic, and satisfactory in musical treatment. With one striking instance of strife between sense and sound, I take leave of this opera. At the conclusion of the second act Elvino spurns Amina, in consequence of her supposed guilt, while the rest of the dramatis personæ are engaged in moderating the violence of his rage, or endeavouring to impart consolation to the distracted and injured girl. In this scene, so awful to the spectator, his feelings are outraged by the levity of the musical treatment, which is a commonplace Italian motivo, with triplets in the accompaniment; while the chorus bawls to the same tune, and the orchestra increases, by its vociferation, the merriment of a strain fit only to accompany a ballet. And yet the discerning critic in the *Edinburgh Review* informs us that “Bellini, more than any other author since the days of Mozart, addresses us in the simple, unadorned, and unaffected language of feeling and nature!” This is the first time that any one has ventured on a comparison of the quackery of Bellini with the music of Mozart; it may be hoped that it will be the last.\*

But the reviewer has further information in store. “His style is eminently chaste, and entirely free from that species of meretricious embellishment which, repeated as it is, *usque ad nauseam*, throughout the works of Rossini, so much disfigures his music. Besides being perfectly original (!!!), it is more graceful, flowing, and infinitely more impassioned. In this respect, and in its freedom from all pedantry, we regard the music of Bellini as a decided advance in the progress of the art, and a still further development of that principle of the modern system which has been at work ever since the refinement of melody became an object of attention.”

That the style of Bellini is totally devoid of meretricious embellishment—*i. e.*, ornament neither suited to the subject nor founded on the structure of the harmony—may admit not only of doubt but of denial. It is, however, not ornament in itself which constitutes a defect, but the *ad libitum* and gratuitous character imparted to it. Mozart has introduced ornament, with no sparing hand, into the *Zauberflöte*, but it there forms a part of the melody, and even conduces to grandeur of effect, as in the songs of the Queen of Night in that opera.

\* Some of my readers may feel surprise that I pass over the *Puritani* without a detailed notice; but such notice could only consist of an enumeration of the defects before mentioned as characteristic of this author. Notwithstanding the perfect performance and the beauty of some of the melodies, I never experienced weariness so intolerable in listening to any other opera.

“ Besides being perfectly original !” Thus incidentally to introduce so unqualified and positive a declaration, without an attempt to support it by the shadow of a proof, is a mode of procedure far from satisfactory or conclusive. So remarkable an assertion might induce a suspicion that the reviewer was an entire stranger to the classical Italian school of opera composers, beginning with Sacchini and closing with Paer. Has he ever looked into the solfeggios of Italian singing-masters ? If he had, these rash words could not have escaped ; if he is conversant neither with the former nor the latter, he is incompetent to form an opinion on the subject. Handel, Haydn, Mozart, are far from being perfectly original ;\* these great masters were not ashamed to acknowledge their obligations : it is, therefore, mere waste of words to prove the mighty debt incurred to their predecessors by composers of a minor calibre.

In regard to the improvement which it is alleged that Bellini has effected in melody, there is only one feature in which it differs from that of many composers belonging to the old school ; take, for instance, Guglielmi. I allude to the showy manner in which he adapts his words, partly by setting emphatic phrases to sonorous though unmeaning successions of notes, and partly by taking the utmost advantage of the sonorous nature of the Italian language, in a repetition of the same word, and by this device to impart an impassioned character to a melody which, if applied to English or German words, or if performed on an instrument, would be divested of this artificial and adventitious colouring. These contrivances, although they may be blameless, will not contribute to the advancement of the art, nor will mere “ freedom from pedantry,” especially if it arise from positive ignorance, be of service to music any more than improvement will accrue to literature from the writings of an unpedantic, because uneducated, man. Mozart undermined pedantry by substituting for empty forms the graceful imaginations of his glowing genius ; while the only equivalent offered by the modern Italians is exemption from too much learning.

I confess my inability to understand the reviewer when he discourses of “ that principle of the modern system which has been at work ever since the refinement of melody became an object.” This

\* In this fact lies one main argument for the study of classical composers of former ages, of the works, not of one school, but of all. Dr. Crotch gives a list of the writers from whom Handel borrowed, or whom he imitated. Mozart replied to a friend who complimented him on the ease with which he wrote, “ I believe there is no good composer whose works I have not played through many times.”

principle would seem, from the context, to be an increase of simplicity and clearness of melody. But such has been by no means the tendency of the art; the course which it has followed, at any rate, for a century back, has rather been in an opposite direction. Compare the melodies of Weber, Spohr, Marschner, Ries, Reissiger, with those of Haydn, Mozart, Winter, Himmel, Weigl, and Kreutzer. The latter will be relished by persons totally ignorant of musical science, while the former require the harmony and the whole design of the composer to be understood before they can impart the slightest pleasure. The style of the Mozart school, again, was so much more complicated than that of preceding composers that many critics ascribed the admiration of their partisans to affectation. Had the reviewer ever seen an opera of Graun or of Hasse, he might possibly, on account of their simplicity, have preferred them to the works of later masters; yet this very simplicity has caused them to be forgotten even in name; they are no where to be met with save in the cabinets of the curious, and were they produced before a modern audience, would infallibly send them to sleep.

If we turn to the Italian school, a similar change appears to have taken place. Where do we find airs so clear, simple, and intelligible, as in the unexplored works of Sacchini, Guglielmi, Sarti, Paisiello, and Zingarelli? The *motivi* of their successors, Cimarosa, Mayer, and Paer, although of exquisite beauty, are more interwoven and connected with the harmony, or, in other words, bear a certain similarity to the German works of the same period. It is impossible, consistently with beauty, to find melodies more simple than those of the first mentioned composers, nor can the piquancy of the latter be surpassed; Rossini, therefore, wisely struck into a different track, and the great sensation which he created may be fairly attributed to the lightness and flippancy of his melodies, and to the gayety which invariably pervades them. Where then do we find traces of this simplifying process to which Bellini is said to put the finishing stroke? The true history of melody would seem rather to be the following:—In the early part of the eighteenth century, while the opera was in its infancy, the melodies of Jomelli, Vinci, and Galuppi in Italy, and those of Graun and Hasse (Italian in character, but written in Germany), although beautiful, were not possessed of sufficient animation and vigour to render them appropriate on the stage. The accompaniments were meagre, and intended rather to fill up the harmony than to take an active share in forwarding the dramatic action. In the hands of the successors of these composers, with Sacchini at their head, melody became more

animated, more vigorous, and considerably more ornate ; the embellishments partake of a greater freedom, and display more knowledge of the human voice. As, however, this school, like the preceding, relied exclusively on the beauty of the airs, neglecting science and ingenuity in the harmony, they are equally amenable to the charge of feebleness and monotony. On the other hand, their beauty was so exquisite as not only to spread the fame of Italian operas over the world but to cause it to be transplanted into every other country.\* Whatever is an object of nearly exclusive attention will, under favourable circumstances, be speedily brought to perfection. If these statements prove correct, the assertion that the melodies invented by the Italian composers, from Jomelli or Pergolesi down to Paisiello, are, with one exception, more beautiful than any which occur elsewhere, will not excite surprise. While it is my decided conviction that no improvement in vocal melody has been effected by later composers, I freely admit that the *motivi* of their successors, commencing with Martini and Cimarosa, are intrinsically equal to them, while their effect is enhanced by the adoption of the system introduced by Mozart. Cimarosa and his successors always availed themselves of the power of the orchestra in strengthening the feeling intended to be produced by the air, and therefore they introduced the delightful orchestral effects with which their works abound. But after Paer, the last of that classical school, beauty of melody may be said to have declined. Rossini relied upon ornament as a means of exciting the wonder of his audience, and upon his power of expressing the ludicrous. The manner of Bellini may be described as a *return* to the simplicity, bordering upon inanity, which characterised the old Italian composers (Vinci and Galuppi), combined with the noisy, unmeaning system of instrumentation, which Mr. Hogarth designates as pseudo-German. I cannot contemplate the works of the classical Italian masters without experiencing a sensation of regret that, while the majority of students remain in ignorance of productions on which the fame of Italian music is founded, they should be induced, by a vague idea of the excellence of *all* Italian music, to consume time and corrupt their taste by persisting to draw from a source which is nearly exhausted, instead of recurring to the pure stream of melody which flows through the pages of those classical composers. Actuated by the hope of in-

\* In proof of the admiration excited by the Italian compositions of the early schools, see the *Letters of Gray*, Marmontel's *Autobiography*, and Rousseau's *Essays on Music*, and *Musical Dictionary*.

ducing my readers to explore these neglected works, and with the view of preserving beauties so exquisite from oblivion, as well as of affording an opportunity of testing the correctness of the foregoing arguments, I give a list of specimens which, although scanty, may awaken a desire for further research. The list might have commenced from an earlier period, but the plaintive and tender songs of Hasse, &c., are not easily to be procured, whereas most of the following pieces may be purchased at any foreign music-shop in London.

- SACCHINI..... { Più non ho la dolce speranza.—*Aria*.  
 Resta ingrata.—*Aria*.  
 Je ne vous quitte point.\*—*Arietta*.
- GUGLIELMI..... { Dolce speranza in seno.—*Trio*.  
 Se perdo il mio bene.—*Cavatina*.  
 La mia tenera agnellina.—*Duetto*.  
 Si ti leggo al volto.†—*Aria*.
- SARTI ..... { Lungi del caro bene.—*Cavatina*.  
 Ah non sai.—*Aria* (*arranged by Dr. Crotch*).  
 Amplius lava me.—*From a Mass* (*arranged by Novello*).
- PAISIELLO ..... { Ho perduto il mio bene.—(*Arranged by Dr. Clarke*).  
 Saper bramate.
- ZINGARELLI ... { Dunque mio bene.—*Duetto*.  
 Ombra adorata.—*Aria*.
- FLORIO ..... Se mi credi amato bene.—*Duetto*.

These specimens (all of which are within the compass of private performance) will demonstrate how slender is the claim which Bellini possesses to the appellation of a simplifier of melody; and small indeed must be his chance for immortality when we have witnessed the oblivion which has successively overwhelmed the most popular composers of Italy, who each in his day was, like him, the idol wor-

\* *Œdipe à Colone*, the opera from which the above exquisite melody is selected, was originally performed at Paris: the opera abounds in similar morceaux, and is worthy the attention of the student, as furnishing an idea of the state of dramatic music at that period.

† I do not think that any author, either ancient or modern, has produced a more simple, clear, and *eloquent* motivo than the part of this song beginning at *Deh respirar lasciate mi*.



shipped to the exclusion of all others. The operas of Sacchini maintained their ground longer than others, but they are never performed at present; whereas the works of his German cotemporaries continue to exercise over the public taste an influence nearly as great as they did on their first appearance. This is a confirmation of the maxim that it is not the most simple, the most intelligible, or the most popular compositions at the time, but those which display the highest power of mind, that endure as monuments of genius, that create an era in the art, that become the test by which the musical historian judges of its state at the period when they were produced. Nor at the present day is the tendency of music towards greater simplicity; it gives, on the contrary, evident signs of an increase in piquancy, variety, interest, and animation. Its limits are enlarging daily; new resources are discovered, new paths are struck out by every successive candidate for immortality: and, *provided the proper means are adopted*, we may reasonably indulge in the expectation of seeing a genius arise who will unite in one splendid whole the varied and scattered excellencies of his predecessors.

In order to induce my readers to extend their researches, and thus to qualify themselves for the detection of the countless plagiarisms committed on their predecessors by the *soi-disant* maestri of the present day, I will present them with specimens from some of the greatest masters of the Mozart school; these will, I trust, be sufficient to establish the superiority of *their* melodies over those of the modern Italian school.

WINTER ..... { Confusa, agitata.—*Aria (Calypso)*.  
Io mi pasco di sospir.—*Aria (Calypso)*.  
Mio dolce tesore.—*Aria (I fratelli rivali)*.  
The maid who'd wish to slumber.—*Quintett,*  
*(Opferfest)*.  
There was a time ere sorrow.—*Air (Opferfest)*.  
Mi lasci o madre amata.—*Trio (Proserpina)*.  
Men'andro al Giove.—*Duet (Il trionfo del amor*  
*fraterno)*.

MARTINI\* ..... { Più bianca di giglio  
Perche tu m'ami  
Dolce mi parve un die } (*Una cosa rara*).

\* Martini may be regarded as the connecting link between the school of Sacchini and that which adopted the principles of Mozart. *Una cosa rara* was brought out at Vienna in 1786, at the same time with Mozart's *Nozze di Figaro*, and was for some time more popular than that immortal work.

CIMAROSA	.....	{ La* donna ch'è amante. Ah tornar.— <i>Rondo</i> .	
HIMMEL*	.....	{ O lass dein Herzchen Von Pracht und Schimmer } ( <i>Fanchon</i> ).	
MAYER	.....	{ Mi vedrai nel ciglio.† Qui sospir la rise. Che al mio bene.— <i>Duetto</i> . A goder la bella pace.	
PAER	.....	{ Egli ha il core Vederlo sol bramo } ( <i>Griselda</i> ).	
		{ Io non bado al volto } ( <i>Numa Pompilio</i> ).	
		{ Vieni e consola mi In van in te s'accende } ( <i>Numa Pompilio</i> ).	
		{ Andiamo carino. Spesso trionfa.‡—( <i>Sofonisbe</i> ).	

At the risk of becoming tedious, I am under the necessity of again reverting to the assertions of the reviewer:—"Bellini, more than any other author since the time of Mozart, addresses us in the simple, unadorned, and unaffected language of feeling and nature; and so far from answering the description given in the above quotation (from Hogarth's *History*), we venture to affirm that no music written for the stage was ever more strictly subservient to the situation and action of the drama."

The reader will now be enabled to form a competent judgment as to the reliance to be placed on this assertion. If it be *true*, all that has been advanced in this article is mere imagination and delusion: if *false*, what opinion can be formed respecting the capability of the critic for the task which he has undertaken, when, from vague speculations resting solely on the flimsy foundation of his own peculiar

\* The daily increasing knowledge of German renders unnecessary any apology for the introduction of songs in that language. A clever translation of *Fanchon* could not fail to render that opera popular on our stage. Some pleasing specimens of this excellent composer may be found in the *Lyra Germanica*.

† I have heard, on good authority, that this splendid aria, although introduced into one of Mayer's operas, was composed by Paer. It was a great favourite with Pasta.

‡ Some of the above songs may possibly not be found separate from the operas in which they occur; in this case, it would be doing good service to the public to reprint them.

taste, he deliberately deduces conclusions as easily to be disproved as so many incorrect geometrical propositions? The entire tendency of the article is to retard the progress of the art, and to lower the public taste. It opens with depreciating the advantages of theoretical knowledge, both as regards the nature of sound and the principles of composition. The author apparently considers taste, not as founded on and derived from knowledge, but as something apart—something that may be acquired by the perusal of Mr. Hogarth's book. A considerable degree of attention to the subject has convinced me that as long as the *knowledge* of the public remains stationary, it is impossible that *taste* can progress. The degree of gratification arising from music may be immeasurably increased without devoting a larger portion of time to the whole range of the art and science than is at present lavished on one branch. If, indeed, time cannot be afforded for both the intellectual and mechanical departments, it cannot surely be considered a debateable question whether the *finger* or the *mind* should be deemed the more worthy of cultivation. By this change of plan we might, indeed, lose some superfluous and inefficient pianists; but this loss would be amply compensated by an equal number of true "*kenner*."\* We should be spared the pain of perusing articles like the above, which, presuming on the ignorance of the public, attempts to depreciate Purcell, talks of "unknown and unfrequented paths of modulation tracked out by Weber and Rossini"—(this is nearly as bad as his connexion of Mozart and Bellini)—and concludes by hurling the anathema which was intended by Rousseau to apply to those who were incapable of appreciating real genius, against all who estimate Bellini at his proper value. Such opinions would then fall as harmless as an attempt to pull down Shakspeare and to elevate on his pinnacle of deathless fame some author of popular melodramas. Were it not for the high literary authority of the *Edinburgh Review*, it would have been an useless expenditure of time to undertake the refutation of fallacies which a momentary consideration would render palpable. Unfortunately, the dicta of high literary authorities are exempted, on certain subjects, from the ordeal of reflection. The musical heresies which Addison so confidently promulgated, have since recoiled with double force, from the intended objects of his satire, upon himself. Let authors, then, beware how they dogmatise on subjects with which they are unacquainted, while

\* *Knowers*; a word which merits to be naturalized; *connoisseur* is associated with pretension, rather than actual knowledge.

their readers should employ equal caution in subjecting both facts and arguments to a deliberate scrutiny before admitting the truth of assertions, sanctioned even by the "magic of a name."

In concluding this notice of Bellini, let me again repeat that, far from entertaining a desire to force the individual views contained in this article on the public, it is my earnest wish that they may, by gaining a thorough acquaintance with the subject, become qualified for testing, in the most rigorous manner, the correctness of these conclusions. If they can be proved to be erroneous, the error will be candidly acknowledged, under the conviction that, of all mental problems, the most difficult to solve is that of forming a just estimate of our cotemporaries.

Of Donizetti, it will not, after so ample a notice of Bellini, be requisite to say much. He belongs to the same school, and writes on the same erroneous principles. In a comparison of the two composers, Donizetti may be considered as the more correct, Bellini as possessing the greater share of genius: the former draws more largely on Rossini, although he is far from attaining the spirit and fire of his model; while the latter presents us with more original ideas. Pretty melodies are not unfrequent throughout Donizetti's operas; but they are like particles of gold scattered amongst countless grains of sand—the amount of the precious material will not repay the labour of separation from the dross. His instrumentation is as faulty as that of the other writers of the same school. Although destitute of the slightest claim to the title of a scientific musician, he has been appointed Professor of Counterpoint in one of the first conservatorios of Italy: Donizetti occupies the chair rendered illustrious by Durante, Leo, and Jomelli. Alas! for the scholars of Donizetti!—the art has yet to fall.

Vaccai, Pacini, Ricci, Mercandante, &c., are still less worthy of detailed notice: their melodies, when pretty, are plagiarisms, and when original they are dull.

These are the composers who monopolize an establishment supported at greater cost than any other in Europe;\* these are the men who are deemed worthy to supersede the masters of every other school. It has been already demonstrated that these disgraceful proceedings may be, in great measure, attributed to the ignorance of the public, and the indifference with which they receive whatever the manager or the singers think proper to provide for their entertainment. The removal of existing ignorance, and the forma-

\* The amount of subscriptions is from £25,000 to £30,000 per annum.

tion of an enlightened taste, can only be the result of a properly directed and long-continued course of study : a remedy may be, in the mean time, suggested which will have a tendency to palliate, although it will not entirely remove the evil.

The attempt at the present moment to perform classical music of every school could only terminate in failure and disappointment: Italian singers possess a peculiar style, and manner, and taste, which from long habit have become a second nature. Remove them from the usual routine of their daily practice, and their inferiority to other performers becomes as manifest as their former excellence. To them Weber, Beethoven, and Spohr, write in an unknown tongue ; the mode by which these writers produce their most splendid effects is a science which they have never acquired. While the composers of other countries, more particularly the Germans, have learned, during a residence in Italy, to combine Italian ease and grace with their native depth and elaboration, the Italians have never incorporated with their own style foreign peculiarities, so as to render them indigenious. In fact, when a composer has formed an exception, it will be found that he lost the favour of his countrymen in the same proportion that he allowed foreign ideas and novel modes of treatment to disturb the pure stream of native melody. Such was the fate of Jomelli, whose music received the appellation of *scelerata*, in consequence of the introduction of a few German harmonies. Paer, and still more strikingly Cherubini, forfeited, for the same reason, the good opinion of the Italian public. This patriotic attachment prevails with equal force among the singers ; an Italian opera, in whatever country it may be performed, remains unchanged and unmodified by the taste of the public, or the example of composers in the country of their temporary residence. An Italian company invariably sings the compositions of Italians, or of those foreigners who have made the nearest approach to their style.

Instead, therefore, of attempting the impossibility of requiring Italian performers to sing *la musica tedesca*, let us rather employ their unrivalled talent in the classical school founded by Mozart. The key to his style may be found equally in the accidents of his artistical cultivation and in the events of his subsequent life. By birth a German, his earliest studies were among the works of Handel, Sebastian and Emanuel Bach ; had circumstances confined him to his native country he would, in all probability, have rivalled, in their own line, these great men. But during a visit to the native land of song, at an age when impressions received by the ductile mind become not only permanent but expand with the growing

mental and bodily powers, the young artist studied with enthusiasm the noble models of genius left by the composers of a by-gone age, at the same time that he was favoured by the personal friendship of their equally great successors, Hasse and Jomelli, whose works then held the first place in public estimation. With these models and in this society, engaged also in composing an Italian opera for native artists, his ardent temperament could not fail to be deeply impressed by the melodies, so congenial to his feelings, which he heard constantly floating around him : in short, they became a part of his being, modified by his immense stores of learning, tinged with the pensive cast of northern art, and rendered more lovely and fresh by his consummate skill in suiting the music to the passions, nay, to the minutest shades of the characters he portrayed. He created a new era in the art by so blending the two styles as to form a school of his own more excellent than either ; characterised also by attention to truth and nature, rather than fettered by conventional rules. Hence, as a dramatic composer, he excels alike his predecessors and his followers ; others may have written works irreproachable when considered in the abstract, but they are deficient in that nice adaptation indispensable to correct delineation of character. Mozart is the Shakspeare of music. To our countrymen, who are too much inclined to regard music in the light of a merely sensual gratification, an intimate acquaintance with his works cannot fail to impart, both as regards composition and performance, more just and elevated conceptions respecting operatic excellence. While, then, we diligently study Mozart and follow out the principles on which he wrote, let us not regard him as a mere musician, but as a dramatic poet whose language is music.

*Don Giovanni* has been performed over the whole civilized world ; volumes have been written analyzing its merits, arrangements have been published for every instrument, its songs have furnished motives for piano forte writers and performers of every grade ; this insatiable repetition and imitation, these innumerable parodies, would have exhausted a more trivial work, while this master-piece still remains the highest treat which can be offered to the lovers of dramatic music. In whatever point of view we regard it, whatever may be our own individual taste or theory, we must be in no small degree fastidious if it fulfil not our idea of perfection. The “sublime, the beautiful, and the ornamental,” are here found in due proportion ; lovely and vocal melodies, ingenious instrumentation, contrapuntal correctness, and modern freedom, combined with so much grandeur of conception and exquisite finish in the execution, that it

may admit of doubt whether Don Giovanni will ever be equalled, surpassed it cannot be. It is, therefore, to be hoped that the manager may be compelled, by the improving taste and growing knowledge of the public, to produce, more frequently than he has hitherto done, so stupendous a monument of dramatic genius.

*Le Nozze di Figaro*, although it does not rank so high as a work of art, possibly on account of the subject requiring a more one-sided treatment, is nevertheless replete with enchanting melodies, interesting yet natural harmonies, and above all it contains concerted pieces which will ever serve as models in this difficult, and therefore now neglected, part of dramatic composition. How skilfully are the various characters exhibited ! how clear is the expression of their feelings ! and how rich their effect when brought into collision by the concerted pieces ! Perhaps the finest, though least generally known, parts of this opera are the sextet *Riconosci in quest' amplesso*, and the finale to the second act. Among the airs may be mentioned *Al desio di chi t'adora*, as a specimen of the true style of the opera song. Would that our great artists displayed their powers more frequently on such compositions ! And although the attention and applause usually bestowed upon the performer would be shared by the composer, yet if the former have a proper sense of the dignity of his calling, he will prefer rendering the conceptions of the mighty master, and producing in the minds of the audience the feelings and the effects which he intended to create, to the poor ambition of exciting astonishment by feats of mere mechanical dexterity, which, in the estimation of the enlightened critic, hold no higher rank than the *tours de force* of a tumbler or a rope-dancer.

*Così fan tutte*, in comparison with the two former operas, produces a similar effect to a water-colour drawing by the side of an historical painting. This may be in part attributed to the flimsy materials, the entire absence of plot, and the miserable diction : to supply the deficiencies of the poet and to construct a dramatic whole on so imperfect a foundation, called for no ordinary degree of skill in the musician. As the characters are of his own conception and invention—(in the hands of the poet they are mere sketches)—they require to be examined and criticized accordingly. It is, therefore, to be regretted that Mr. Hogarth should have revived the old charge brought against Mozart's comic operas, that they contain too great a degree of seriousness and sentimentality.\* As, in the present instance, however, had the music been constructed on the model of

\* *Musical History*, p. 265.

the words, few would have had the patience to listen to it, no plan could have been more judicious than that of presenting a succession of exquisite musical miniatures, consisting of inexhaustibly lovely melodies, with delicately instrumented accompaniments. A lofty style would only have rendered the absurdity of the poem more conspicuous, while Italian buffoonery and volubility are too remote from nature and feeling to impart that moral interest which can alone confer on any work of art the power of pleasing, after productions of greater cotemporary fame (because complying with and flattering the false taste of the day) have been consigned to oblivion. The tone which pervades alike this opera and *Figaro*, is that of refined society, or rather of the *beau ideal* of it, which Goldsmith, Sheridan, and Cumberland have so happily attained in their comedies. To assert that these would have been improved by a mixture of low buffoonery, that they are too serious—too heavy, is not a more palpable absurdity than to maintain that Mozart would have been greater had he been capable of descending to vulgarity. But the English public have yet to learn the distinction between a comic opera and a musical farce. *Così fan tutte* is an excellent example of the former, *I Virtuosi ambulanti* of the latter.

If we refer to the classical Italian school, we find that Paisiello, by depicting the passions with equal truth and beauty, has produced in his *Barbiere di Seviglia* a genuine musical comedy. Nor should it be forgotten, that, in music as well as in literature and in acting, the acme of the ridiculous is frequently obtained by the contrast between the gravity of the narrator and the ludicrous situation in which he is placed. It would prove highly interesting to pursue these speculations more in detail. It cannot but form a subject for regret, that, in England, music being regarded either as a branch of learning or as an accomplishment, and never as a vehicle for the expression of our familiar feelings, we remain, in consequence, still so far behind our German brethren in its application to the passions and emotions, as to compel us to abide by their decision on all æsthetic questions. Our love for the art is intense, and all the elements of musical greatness are in existence in this country, but as yet encumbered by the dross of ignorance, prejudice, and inexperience. Instead, therefore, of criticising the *chef d'œuvres* of a great master because they do not, in all respects, accord with our present views, it would be wiser to distrust the correctness of our own taste until we have bestowed some pains in acquiring an intimate knowledge of the principles on which he wrote. Were the modesty, the deference to a great name which is observed in the criticism of the



other arts extended to music, the good effects of this course would become visible in the amelioration of public taste which must necessarily ensue.

The opera before us is eminently characteristic of Mozart, yet we perceive that the poet is unbending himself, and lowering the dignity of his style, while by imparting to it additional grace he renders it to the majority of his hearers more attractive. His dramatic talent is equally conspicuous in this instance as in the works before noticed; the characters are distinctly and naturally represented, and the effect of their peculiarities heightened by the art with which they are contrasted. Concerted pieces do not form so prominent a feature, nor are they on so grand a scale; yet the quintett, *Alla bella Despinetta*, is excellent, and the finale to the first act contains some elaborate and masterly writing. Of the arietts and duets which abound throughout the opera, it might be difficult to find their rivals in loveliness, except in the unknown works of the neglected and slighted Winter. *Ah! guarda sorella* is an instance of the simple means by which Mozart attains some of his most delightful effects; the melting of the andante into the clear allegro is peculiarly happy. The duetto *Fra gli amplessi* is a beautiful specimen of the union of grandeur and pathos. The whole scene is admirably treated, and deserves attentive study; the change into C at the allegretto is most impressive, and the loftiness of the impassioned address of Ferando cannot be surpassed. The return into the key of A is skilfully effected; every note enhances the dramatic effect; nothing is admitted merely for the sake of the modulation. But it is the andante which winds our feelings from the highest pitch of excitement into an extacy of pleasure. Words are inadequate to convey an idea of this most delicious movement; it must be heard, or, still better, studied, and the more closely it is examined the higher will the composer rise in our estimation. The part of Ferando is distinguished throughout by pathos, grace, and refinement. *Una aura amarosa* and *Ah ti veggio* are strains which will be listened to with pleasure in every age. Although the part of Fiordegli contains music both dignified and impressive, it is occasionally tinged by the conventional style calculated to display the prima donna of the day. *Despina* and *Dorabella* enjoy the advantages accorded to persons in their humble sphere, both in real life and on the stage, of displaying the impulses of their nature unrestrained by art or fashion. *Una donna a quindici anni*, and *Amore un Ladroncello*, are favourable specimens of their respective characters. Guglielmo has the rare merit of being a comic personage without the slightest tinge of

vulgarity ; but, although his vein of light merriment prevents much depth from entering into the construction of the music which he sings, I am inclined to think that *La mia Dorabella*, *Non siate ritrosi*, and *E voi ridete*, are the best known and most popular parts of this opera. It is altogether a charming production, and one which deserves to be frequently brought before the public.

The *Zauberflöte* enjoys on the continent a reputation second only to *Don Giovanni* ; it is, perhaps, the most universally and durably popular opera in the German language. In England, on the contrary, while separate morceaux are general favourites, it does not appear to have been sufficiently appreciated by scientific musicians. Nor is this, taking into consideration the manner in which parts have been adapted and mutilated, much to be wondered at, especially as, until the arrival of the German company, it had not been for many years performed entire in London. The practice of adapting and altering should be discountenanced by all who are desirous of raising the dignity of the art and of preserving the purity of public taste. No practice can prove more fatal to the reputation of a composer than the transformation of an air or duet into a psalm tune, of the subject of a symphony into a song, or an elegant aria into a quadrille. The march for instruments in this opera has furnished the subject for a psalm, and the trio *Oh cara armonia*, elegant and appropriate where it occurs, has been adapted to the words "Away with Melancholy," denuded of instrumental accompaniments. The conspiracy, indeed, appears to have been general, scarcely an air in the opera but has been seized and mutilated to suit the introductions to the piano forte, flute and violin preceptors, &c. The consequence is that the majority of persons associate the lighter portions with the miseries of their days of pupilage and practice, while with the more serious parts, and the scientific development and connection of the whole, they are entirely unacquainted. While conceding that in this country justice has not been rendered to its merits, it may form a question whether they have not been too highly estimated by the Germans. Among popular operas it undoubtedly is deserving of the first place ; but, considered scientifically and as a whole, the music is deficient in depth, grandeur, and connection. The expectations excited by the overture (decidedly the finest of the sombre cast ever written) are no where fulfilled. It scarcely admits of doubt that, had Mozart consulted his own feelings, instead of conforming to the frivolous taste of his audience, he would have written very differently. Experience, however, had taught him that he could not commit any error more dangerous to

cotemporary success than that of appealing too largely to the higher faculties of his audience. This was the reason that both *Le Nozze di Figaro* and *Don Giovanni* were at first only partially successful; the music was too scientific and too original to be at once appreciated by a superficial audience. But Mozart had obstacles still more formidable to encounter in the folly and presumption of Shikaneder, the manager for whose benefit the *Zauberflöte* was composed, who was in the constant habit of erasing the best parts of operas written for his theatre, and substituting such passages as pleased his own bad taste. Mozart was too conscious of his own powers and of the dignity of the art to allow the unity and harmony of his works to be thus marred; but we are<sup>3</sup> informed that his patience was occasionally put to severe trial by his presumptuous critic, who actually obliged him to compose the duet *La dove prenda* five times before it could obtain his approbation. In this manner was the great master hampered by his audience and by an ignorant censor, and, as a natural consequence of this tyranny, some of the airs are too trivial, and the construction of the concerted pieces too simple and superficial. But there are parts where the force of his genius shines undebased by meaner matter; such are the march and chorusses of Egyptian priests, and the effect of the choral melody sung by the men in armour. The manner in which the wicked, revengeful character of the Queen of Night is portrayed, is another masterly effort. With the mention of the *Italian* beauty of the melody *Qual suono ohimè*, I must conclude this imperfect notice of a work which the public ought to be allowed an opportunity of criticising for themselves.

*La Clemenza di Tito* is an heroic opera constructed on the model of the grand musical tragedies of Gluck, a composer who, unknown and unhonoured though his name may be in this country, was the first who broke the conventional trammels which shackled his predecessors, and who, by working on more profound principles, rendered music really dramatic. Mozart ever expressed for his works the highest regard, and acknowledged that from the study of them he had not only reaped signal benefit, but that they had served as models for the construction of his own tragic operas. The enlarged resources of the art at this period, produced in great measure by following out the principles of Gluck, enabled our author to surpass his model. *Tito* combines the majesty of Gluck with more grace and expression; there is less of instrumental colouring than in his other operas, but the melodies are on a grander scale. The disadvantages arising from the undramatic character of the text are over-

come by the composer in the manner already noticed in speaking of *Così fan tutte*. The assertion has not unfrequently been made that music should be suited to the words; but this precept requires to be taken with considerable limitations. A great composer will rather direct the adaptation to the subject and tenor of the whole than to minute peculiarities. In other words, although the aim of the poet and the musician be the same, yet should the latter by no means slavishly attach himself to the march of the former, nor, indeed, should he pursue similar means. That such was the plan adopted by Mozart is apparent on examination of his works, whether we regard separate portions (lyrically), or view each as a whole dramatically. Frequently do songs occur pourtraying love, revenge, or other passions, but feebly expressed and in commonplace terms, yet the music so concentrates the idea of the poet as almost to amount to a personification. And, again, he forms a dramatic whole by working out the character in accordance with his own lofty and true conceptions, instead of servilely following the meagre sketch of his author. The three most important characters in this opera are *Servilia*, *Tito*, and *Sesto*. Every genuine lover of dramatic music who has heard Malibran sing *Non più di fiori*, cannot but lament that the world has been for ever deprived of the opportunity of witnessing the personification of a character so admirably suited to the powers of that unrivalled artiste as that of *Servilia*. *Tito* is painted with almost historical fidelity; his greatness and his clemency shine conspicuous in every note. On hearing the celebrated *Wild* in this part, at a small town in Germany, I became convinced that I had previously formed an inadequate conception of its beauties. But *Wild* is, as Malibran was, neither a mere actor, a mere singer, nor yet a combination of the two, but a real artist. I am of opinion that this opera might be got up in a more artist-like manner with an entire English cast than would be possible with the present Italian company. It will be unnecessary to enter into detail respecting the beauties of particular parts of an opera better known, perhaps, than any other of this author.\*

Of the *Seraglio* I am not aware whether an Italian version exists, but, be this as it may, this opera is by no means adapted either to the performers or the audience of the King's theatre. Written

\* *Parto ma tu ben mio*, which occurs in the part of *Sesto*, has been sung at the vocal concerts by Miss Shirreff. A song less adapted to a female voice it would be impossible to find throughout the whole of Mozart's works. It is also advertised to be sung at the quartett concerts by Miss Woodham.

before Mozart had attained to that peculiar style which spread his fame throughout Europe, although containing many great and sterling beauties, yet, when compared with his other works, the style appears deficient in expression, and on the whole too prolix. It is still frequently performed in Germany, and, had we a real English opera house, would probably become a favourite on our stage.

*Idomeneo*.—The grandest heroic opera ever written. Like *Tito*, it unites the majesty of the old with the pathos of the modern school; the period at which it was written, and the nature of the subject, were more favourable to sublimity and less to the trifling graces so captivating to vulgar minds. It may appear somewhat singular that, both on the continent and in England, so extraordinary a production should alone, of all Mozart's works, have been laid on the shelf; but the fact is that neglect must inevitably be the portion of some of the greatest master-pieces ever composed, as long as attention continues to be given rather to the *form* in which they appear than to the *ideas* which they embody; as long as admiration continues to be lavishly bestowed on the drapery to the neglect of the beauty and truth of the figures themselves. In criticising an ancient painting, it is considered no disparagement to the artist that the robes with which he invests his figures agree not with the fashions of the present day; nor would it be possible to place Michael Angelo below Sir Thomas Lawrence on the ground of the draperies of the latter being more in conformity with modern taste. And yet because the cadences in *Idomeneo* differ from those which Rubini and Grisi daily teach us to admire—because the instrumental accompaniments remind us rather of Handel and Gluck than of the sparkling phrases we have heard in the last piano forte concerto, on grounds equally frivolous and nugatory are we debarred from ever listening to one of the greatest triumphs of the dramatic art. But with trifles such as these the *art* has no concern, nor can they affect its master-pieces; oblivion will never be the lot of master-minds like Handel, Bach, and Mozart, as long as human voices continue capable of executing their divine harmonies. The beauties of *Idomeneo* are of too lofty an order to pass away with the conventional phrases and turns of melody fashionable at that period. No event would produce a more favourable impression on the musical taste of our country and time than the revival of *Idomeneo*. It would be a giant step in the progress of good taste; an admission of the *principle* that conventional forms ought invariably to be considered as subordinate to the ideas which they invest. It may be feared that the King's Theatre is not the place in which a resuscitation like

this will take effect. Supposing that the management were to devolve on more competent hands than those of a mere adventurer ignorant of music and careless of the interests of the drama, whose sole object is to draw money from his subscribers and to expend little on their gratification, it must still remain evident to those who are acquainted with the habitual indifference of the audience to the higher beauties of a composition, and their blind enthusiasm for their favourite performers, that they are far from having attained the degree of musical cultivation requisite to enable them to give in their adhesion to the principle that *ideas* are superior to *manner*. But if the higher orders are content to remain stationary, why should not the rest of the nation advance? *Fidelio* has been appreciated in London, it has even been received with greater enthusiasm than on the continent. Let Drury Lane give *Idomeneo*; it might then claim the credit of having introduced to the English public two of the noblest musical dramas in existence. The example would probably be no more followed in this case than it was in that of *Fidelio*; and if the subscribers to the opera choose to pay largely for the privilege of listening nightly to the same undramatic operas, truly they have a right to the indulgence of this taste, while poorer and wiser audiences will probably prefer a more moderate expenditure, and receiving in return excellence and variety.

The widely extended celebrity of the dramatic works on which the fame of Mozart principally rests, may possibly be considered as having rendered unnecessary the foregoing short and imperfect analysis. No doubt every musician has studied Mozart; but this article is written, not for the learned, but for the ignorant—for those who, although they may boast an expensive musical education, are, notwithstanding, entitled to no higher appellation than that of smatterers. And so numerous, in the present defective state of instruction, is the class coming under this denomination, that it includes nearly every unprofessional person who learns music. The true musician is aware that the majority of those who talk of Handel, Haydn, Mozart, &c., possess a very vague and indefinite idea of their respective styles, and employ these great names principally with the view of displaying their own would-be learning. How rare in society is the performance of one of Mozart's songs! and how seldom, in comparison with the productions of Bellini and his congeners, is one to be found in a lady's collection! And when at length it is brought forward, endless apologies are considered necessary to excuse the introduction of such old-fashioned stuff. Those who at present speak in ignorance of Mozart, I would strongly

urge to a practical acquaintance with his value, in order to convince them that, as an artist, as a creative genius, he stands as independent of the caprices of fashion as the master minds in the sister arts. The substitution of the songs mentioned in the course of this article for the trash which Italian singing-masters usually recommend, will be eventually acknowledged as a manifest improvement, and the exchange will become a subject for congratulation to all parties. An opportunity of contrasting the gold of Mozart with the dross of modern Italian scribblers would effectually disperse the clouds of ignorance, and banish at once frivolous and bad taste. Such an opportunity would, in all probability, prove effectual in producing a reconciliation between the two parties who now divide the musical world. The first of these parties consists of exclusive admirers of mere science and artificial contrivance; the second is composed of advocates for the popular and easy of comprehension. The favourite (cotemporary) composers of the former are Spohr and Mendelsohn—of the latter, Rossini, Auber, and Strauss. The music of Mozart, although eminently scientific, is yet capable of being appreciated by the most uncultivated lover of sweet sounds: it is, consequently, beyond any other, calculated to controvert the unfounded, though widely spread, opinion that science excludes or is opposed to whatever pleases the ear; it, in fact, rather demonstrates the converse proposition, viz., that it is only through the medium of science that the art is rendered capable of imparting the highest and most permanent gratification.

The student having been thus gradually led to examine the means by which the musician acquired so complete a mastery over the minds of his hearers—having, as it were, paid involuntary homage to science and ingenuity of contrivance in one composer—would feel a greater inclination to extend his researches to others, than if he had been at first compelled to listen to the more recondite efforts of art. Place a fugue of Sebastian Bach, a symphony of Beethoven, or an opera of Spohr, before one whose acquaintance with the art (if it be worthy the name) has been limited to Bellini and Herz, and it is more than probable that he will contract a lasting disgust for scientific music. Were this injudicious course (too commonly pursued by the advocates of science) reversed, by beginning with Mozart, it might not be impracticable so far to improve the taste of the most determined devotees to fashionable trash and “new music” (most inappropriately so termed) as eventually to render them sensible to the beauties of those masters who produce their effects rather by the harmonic development of the parts collectively than

by the melodious beauty of any one. Let lost time be redeemed by the diligence with which we resolve in future to cultivate an acquaintance with Mozart. No nation is so ignorant of his works as the English: during his life, when they were performed to enthusiastic audiences over the whole of Germany, his fame had not yet reached this country; a solitary specimen was at length introduced, and the public taste lagged so far behind as to be incapable of discerning its merits—even at the present day, they are not seldom stigmatized by the epithet old fashioned! Thus, while in Germany the admiration for this great master amounts nearly to veneration, the greater part of the English have advanced little farther than to have heard that such a composer has existed. The influence produced on the public taste of the two nations by this difference in circumstances, requires to be witnessed in order to be credited. I therefore repeat that we can only expect to atone for past supineness by encreased exertions.

A similar analysis of some of the principal works of the great writers, both Italian and German, who adopted the principles which Mozart was the first fully to develop, would prove equally useful and interesting; but this article having already encroached too much on the space which it is entitled to occupy, I must postpone, for the present, that part of my plan, and rest satisfied with the mention of the names of those authors whose works could not fail to impart increased attraction to the now monotonous Italian opera. Winter, Cimarosa, Mayer, and Paer, occupy a conspicuous place on all the principal boards of Germany. That they are excluded from our own, is but a natural consequence of the absence of an enlightened taste to control the indolence and the carelessness of the performers. Should it accord with the views of the Editors of *The Analyst*, it is my intention, in a future number, to endeavour to rescue these charming authors from the oblivion into which they have undeservingly fallen in this country. I hope that I may, in the mean time, venture to indulge in the expectation that the readers who have taken an interest in this subject will, by becoming acquainted with the specimens which I have already cited, have advanced at least one step towards qualifying themselves to confirm or to refute the statements which may be hereafter advanced; always bearing in mind that the mere possession of a work of art will not constitute ability to criticize, without a thorough knowledge of the rules and principles on which the art itself is founded.

There remains one point in reference to the present mode of conducting the opera, to which this notice may possibly be instrumental



in directing public attention. Why are the vocalists at a theatre, supported by an immense expenditure of English money, to be exclusively Italian? Granting the impossibility of procuring from any other country than Italy four singers equal to the principals of the present corps, does it necessarily follow that Mad. Castelli, Signor Galli, Signor di Angioli, Signor Winter, and a host of equally accomplished performers, are more competent to illustrate the beauties of the parts allotted to them, than some of the natives of this less favoured isle? Why are artists of acknowledged talents, such as Mrs. Seguin, Miss Betts, Miss Shirreff, Miss Romer, Mr. Wilson, Mr. Phillips, finally why are the pupils of the Royal Academy of Music, pertinaciously excluded from a field of exertion equally calculated to form and mature their talents, and to bring rising genius under the notice of the public? \* No satisfactory reason can be assigned either for the preference or the exclusion: the system militates alike against the interests of the public and the improvement of British art. The inferior Italian performers are well known to be inefficient in solos, and useless in concerted pieces. Then how, inquires some ingenuous reader, do they succeed in obtaining an engagement? or why, on being found, after a fair trial, incompetent, is that engagement renewed? The manager and the conductor are foreigners, and as long as the indolent, good natured, and uninstructed public will pay for the privilege of listening to performers who can neither sing nor act, so long will those who hold the purse continue to pension their own friends and countrymen at the expense of John Bull. To the public, then, does the blame attach of allowing the engagement of incompetent performers, and of sanctioning the exclusive performance of the operas of one monotonous school. While the latter course is persevered in, it is not material how the subordinate parts are filled; but if Mozart, or any other German composer, is to be justly appreciated, it is indispensable that all the performers shall be artists who thoroughly understand the music.

The privation of pleasure sustained on the part of the audience is, however, a minor consideration, in comparison to the injustice inflicted on the young singers of our own country. If the stage is the only field in which a singer can hope to attain the first rank in his profession, it is likewise that in which the greatest combination

\* While this is in the press, Miss F. Wyndham has been introduced first in the opera buffa, afterwards in the Italian opera. It may be hoped that this precedent will be followed systematically.

of talent, cultivation, and experience is requisite to ensure success. We possess, perhaps, a greater number of good concert-room singers than any other country; yet, with one brilliant exception, we have no first-rate dramatic singers. It is true, that neither favourable circumstances nor encouragement, however judicious, can create talent; and it is equally true, that genius of the highest order may be not only concealed from the world, but utterly destroyed, if jealous mediocrity be permitted to levy the heavy duties on talent, which it may deem requisite to its own protection. That these duties are not only absurd in themselves, but that they will prove insurmountable obstacles to all who are either destitute of the means of complying with their exactions, or whose spirit may be too lofty to permit them to become a party to so palpable a conspiracy for defrauding the public, is admirably demonstrated by that eloquent advocate of genius, the *Exposition of the False Medium*.\* The present dearth of dramatic excellence amongst us is the result, not of any inherent deficiency of the elements of which it is composed, but of the system pursued at the English theatres, a system which throws obstacles innumerable in the path of those unknown to fame, excludes them from the opportunity of improvement, and withholds from them the chance of obtaining through the verdict of the public, the reputation and the emolument which their talents, if allowed free scope, might reasonably hope to command. Most of the artists who are now enjoying the fruits of a well-earned celebrity, have been indebted for the successful exhibition and acknowledgement of their powers to some fortunate accident; while others of equal ability, born under a less propitious star, have been doomed to oblivion and starvation by the ignorance and short sighted selfishness of the mental *douaniers* who would seem to exist for the sole purpose of crushing genius.

Although the Royal Academy has not fulfilled, at least in the vocal department, the expectations which were formed on its establishment, yet it may be said that the pupils have encountered unmerited neglect from theatrical managers. Without entering into a minute investigation as to whether the directors and patrons of the Academy have constantly exerted their influence to obtain from the public a fair hearing for those whom they had allured into the musical profession, it is evident that, had the system of vocal in-

\* Page 105. This work, in addition to much valuable matter on other subjects, contains many statements respecting the state of Music in this country that are painfully true.

struction been as efficient as that pursued in other conservatorios, self-interest would have prompted managers to secure the talent matured within its precincts. It may, however, be feared that the course of studies is not of the description to enable the pupils to keep pace with the increasing taste for classical music. The present dearth of great singers may be ascribed to the mistaken and pernicious doctrine that mere mechanical development of the vocal organs will enable the student to cope successfully with the music of any school. In the time of Billington, Bartleman, Mara, and Catalani, whatever might be the elementary training of a singer, an intimate acquaintance with Handel, Gluck, Mozart, and Winter, was considered indispensable, because among these composers lay the daily routine of their public performances. At that period a display of *mind* was a safer passport to success than rapidity of execution, and in this manner were singers forced into greatness. *Style* has been gradually lowering in proportion as it assumed an instrumental character. Italian vocal music has become more florid and less difficult of comprehension, and the fashionable style of the day may almost be denominated a series of exercises. It is infinitely more difficult to do justice to an air, especially one of a grand and imposing character, than to accomplish any accumulation of the florid passages that occur in Italian solfeggios. It may, however, be hoped that a re-action is taking place; certain it is that the demand for classical music is rapidly increasing. Let the directors of the Academy not remain behind; let them prepare the pupils to answer the demands of the public by acquiring an intimate knowledge of the great masters on whom time has confirmed the suffrages bestowed by their cotemporaries.

It is needless to expatiate on the advantages which young and inexperienced singers would derive from habitually co-operating with performers who have attained the *beau ideal* of their respective departments. Let it not, however, be understood that I would advocate the mistaken kindness which would seek to thrust tyros into parts in which the audience has a right to expect the exhibition of matured powers; let it ever be borne in mind that the possession of the highest talents will prove no exemption from the necessity of undergoing a course of drudgery which, to the idle and the presumptuous, may appear a degradation, but which will eventually prove the surest means of preparing genius for those daring flights which the astonished world is apt to ascribe solely to innate and momentary impulse. Any plan which would enable those Royal Academy pupils evidently gifted with dramatic talent, systematically to obtain

engagements at the Italian opera, in parts adapted to their respective powers, is a subject deserving the serious consideration of all who are solicitous for the interests of British art. It is idle to talk of deficiency of talent or of voice; let the experiment be tried with impartiality, and it will be found that English science, in combination with Italian cultivation, will produce now, as heretofore, vocal artists who may fearlessly challenge the world. Let those possessed of influence arouse themselves, and by the adoption of the two principal suggestions contained in the preceding pages—namely, the introduction of classical music and the protection of English singers—they may hope to witness, at no distant period, the conversion of the opera from an idle and expensive luxury into a school in which instruction may be reaped alike by the artist and the connoisseur; while to the public at large it will prove an unerring standard of good taste, in regard equally to the compositions admitted and the manner in which they are performed.

Y. D.

[Reform in music has an able advocate in our correspondent; and we feel confident that such views as these, emanating from an accomplished musician, free from the too common taint of prejudice, will carry conviction into the minds of all who peruse the paper in the same philosophic spirit in which it is written. The only particular in which we differ from Y. D. is as regards the so-called *theory* of music. In our last number we ventured to characterise that as useless, and more than one distinguished musician has since expressed to us precisely the same views on the subject. What is termed “theory” appears to us precisely analogous to “grammar” in language; and the total inability of both to effect the ends for which they are taught, will one day be as freely acknowledged by the whole world as it now is by a few master-minds who fear not to advance some steps beyond the majority. We hold that “theory” and “grammar,” as taught in the schools, are as dry as they are useless; but the *true* theory—namely, the ART OF COMPOSITION—would not only prove ten-fold more interesting to the youthful mind, but would be in equal ratio instructive. Language, in like manner, will never be learned with that ease with which it ought to be mastered, so long as the pupil is tormented with those tedious, repulsive, and pernicious rules termed grammar. With this exception, we repeat that our correspondent’s paper deserves to be carefully perused and re-perused by every one who professes to take the slightest interest in the noble art of which it treats.—*Ens.*]

## SKETCHES OF EUROPEAN ORNITHOLOGY.

GOULD'S "BIRDS OF EUROPE."

PARTS SEVENTH AND EIGHTH.

PART VII.—On opening the seventh part of this work, we find the same merits and the same defects that we had occasion to notice in our last number; the chief of the latter being the too great tameness of most of the figures, but especially those of the *Falconidæ* and *Fringillidæ*. The accuracy of the delineation and colouring, is, however, in almost every case, such as to render the species recognisable by the ornithologist at a single glance; and each plate is, as a whole, so beautiful, as to rivet the eyes of even the most ordinary observer. The first plate represents

The Rock Gossak—*Astur palumbarius*—Autour de rocher, Fr.—Sparviere da Colombi, It.—Hunerhabicht, G. The adult female in mature plumage, and the young bird, about three-fourths of the natural size, are given; of these, both characteristic, we prefer the latter, as having the more falconine expression of the two. "It may be regarded," says Mr. Gould, "as the most noble and typical species of its genus—a genus separated from the Falcons by the absence of the true dentation of the mandibles, and by possessing a short and more rounded form of wings, together with a slender and less robust body." It is widely distributed, in both the old and new worlds, and abounds in all the wooded parts of Central Europe, but is very rare in Britain. In manners it bears considerable resemblance to the Sparrow Hawk; in taking its prey, however, it does not stoop like a Falcon, but glides after its victim in a line with extreme rapidity. The sexes differ considerably in size, and the markings on the breast are more distinct in the male than in the female. The young have the breast brown, and the markings are not in the same direction as in adults. Meyer informs us that this bird feeds on young birds of its own species—a circumstance, we think, that wants verification. Mr. Gould tells us nothing about its nidification or food; the latter consists of Squirrels, Rabbits, Mice, Moles, young poultry, Pigeons, and other small animals. It is said to make its nest on lofty trees, and to lay from two to four bluish eggs, streaked and spotted with brown.

The Siskin Goldwing—*Carduelis spinus*—Tarin vert, Fr.—Erlezeisig, G. Pretty figures, but wanting in the lively expression

of the original ; the plate represents the male and female, natural size. The colour of the female is much less bright than that of the male. Common in Europe, especially where the Birch and Alder abound ; and we are glad to find our author correcting the usual notion of the rarity of this species in Britain ; we have even ascertained that it breeds in this country, and have received specimens at almost every season of the year. Feeds on the buds of trees, and possesses a short but rather agreeable song. This circumstance, combined with its lively and pleasing manners, renders it a coveted bird with the fancier, and *the trade* in London catch hundreds of them every winter.—Builds on the upper branches of lofty trees, laying five light grey eggs, with minute purple dots. We should be glad to hear of the Siskin being met with in England in summer, and that it commonly breeds with us.

The Rednecked Grebe, *Podiceps rubricollis*, Lath.—Grêbe jougris, *Fr.*—Graukehliger Steissfuss, *G.* Beautiful representations, natural size, of an adult in summer plumage, and a young bird of the year. Habitat the Eastern portion of Europe, and the adjacent parts of Asia ; found, but less abundantly, in the rest of Europe ; rare with us. Frequents large lakes and rivers, and the sea-coast. Food the same as that of the other Grebes. The young want the rufous colour on the neck of the adults.

Cinereous Vulture, *Vultur cinereus*—Vautour noir, *Fr.*—Avoltoio lepraiolo, *It.*—Grauer Geier, *G.* An excellent figure of the adult male, one third of the size of nature, the best bird of prey Mr. Gould has figured thus far. Inhabits the extensive forests of Hungary, the mountains of the Tyrol, the Swiss Alps, the Pyrenees, and the middle of Spain and Italy, but never seen in Britain. Temminck says it only feeds on dead animals ; but Bechstein affirms that it will attack Sheep, Goats, and even Deer, picking out their eyes, and being very troublesome to the farmers.

Two rather dumpy engravings of the Green Grosbeak, *Coccothraustes chloris*—Grosbec verdier, *Fr.*—Verdone, *It.*—Gruner Kernbeisser, *G.* An adult male and a young bird, natural size. Indigenous and common in the whole of Europe. Mr. Gould says nothing about the insects and caterpillars eaten by these birds ; nor we believe, has any author noticed the circumstance, although the nestlings are brought up almost entirely on animal food—chiefly small green caterpillars.

Collared Pratincole, *Glareola torquata*—Glaréole à collier, *Fr.*—Glareola, *It.*—Rothfussige Sandhuhn, *G.* A male and female, natural size, are extremely well hit off. Inhabits the extensive plains

and morasses, abounding with lakes, of Eastern Europe. It is a rare straggler in England, but a regular periodical visitant in France, Germany, and Italy. Flies with elegance and rapidity, and takes its insect food on the wing; it likewise runs with celerity on the ground, where it frequently pursues its prey. Breeds amongst osiers and tall rank herbage, and lays three or four white eggs. The sexes resemble each other, but the young are of a more dusky colour.

The Mute Swan, *Cygnus mutus*—*Cygne tuberculé*, *Fr.*—*Cigno reale*, *It.*—Höcker Schwan, *G.* Drawn and engraved, by E. Lear, in a truly splendid and masterly style, and an excellent model for the imitation of the ornithological painter. We have not a single fault to find with it. Indigenous in England, and forming an admirable ornament in lakes flowing through gentlemen's parks. More than one pair is seldom kept at one place, but we have seen as many as twenty or thirty together. "The female lays six or seven long oval-shaped eggs, of a greenish-grey colour, and sits about forty-five days. During this extended period, the male keeps watch at a short distance from her nest; and when the young brood are produced, and take to the water, he is incessant in his care and guardianship, and boldly advances to repel the intruder upon every appearance of danger." The sexes differ little. The young do not attain their full plumage till after the second year, and are unable to breed before the third.

Adult male and female, the size of life, of the Sardinian Starling, *Sturnus unicolor*—*E'tourneau unicolore*, *Fr.* Found in the warmer parts of Spain, Sardinia, and the rocky shores of the Mediterranean. These birds live in small flocks, and breed in the holes of rocks, old towers, &c., agreeing in most of their habits with the Spotted Starling of Britain. The plumage is soft and glossy, and Mr. Gould's plates are very good. Birds of the first year have the ends of the feathers tipped with white; the sexes scarcely offer any difference worth mentioning.

Longtailed Hareld, *Harelda glacialis*, Leach—*Miclon à-longue-queue*, *Fr.*—Eisente Trente, *G.* A male and female, three-fourths of the living size; characteristic, but not so gracefully situated as we could have wished. Inhabits the north of Europe and America, but is mostly found within the Arctic Circle, rarely travelling further south than Britain, which it visits in considerable numbers in hard winters, and a few remain to breed in the Orkneys. Sometimes seen in the lakes of Germany, and abundantly in Russia. "The nature of their food," observes our author, "which consists of Mussels

and other shelled and naked *Mollusca*, confines them almost exclusively to the sea, and they are remarkable for their activity and dexterity in diving." Builds amongst herbage near the sea-shore, the female lining her nest with down from her breast, which is considered equal in value to the celebrated product of the Eider. Lays from ten to fourteen bluish-white eggs, tinged with olive. In summer the white on the head of the adult male—characteristic of the sex and age—becomes of a dark brown; and the young male and adult female are dark brown above, lighter on the breast, and greyish-white underneath.

The Common Crane, *Grus cinerea*—Grue cendrée, *Fr.*—Grue commune, *It.*—Aschgrauer Kranich, *G.* A fine plate, by Lear, representing the adult male, half size, but with the right leg in an unnatural position. Common in the north of Europe and Asia, visiting France and Germany, and formerly common in this country, but now rarely seen, having been banished by the drainage of its favourite marshes, the inclosures of wild tracts, &c. This beautiful bird feeds on grains, aquatic plants, Frogs, Worms, and fresh-water shells. Nidificates amongst Osiers or Reeds on the borders of lakes, and occasionally on the tops of deserted buildings, depositing two dull greenish eggs, dashed with brown. The sexes differ little, but the plumes are said to be shorter and less graceful in the female. Very old males have a long white streak behind the eye.

The Sombre Tit, *Parus lugubris*—Mésange lugubre, *Fr.* Very fairly executed, but, we think, rather too sombre even for the Sombre Tit. Almost confined to the European confines of the Asiatic border. It is about the size of our Garden Tit, which our author supposes it to resemble in habits. The male and female agree in plumage: "the whole of the upper surface of a brownish ash colour, becoming deeper on the top of the head; the secondaries and tail-feathers slightly margined with whitish; throat brownish-black; the cheeks and the whole of the under surface white, slightly tinted with brownish-grey; beak and feet lead colour."

On the same plate is figured, very happily, the Siberian Tit, *Parus Sibericus*—Mésange à-ceinture-blanche, *Fr.* Equally rare with the former, and easily distinguished from it by its smaller size and longer tail. Reported to inhabit the north of Europe and Asia, and to visit Russia in winter. "The upper surface is of a deep ash colour, tinged on the back with brown; the quills, secondaries, and tail-feathers, edged with white; throat black; cheeks and upper part of the chest pure white; under parts greyish-white, washed with rufous on the flanks; bill and tarsi lead colour." Judging



from Mr. Gould's representation—for we have never seen the bird itself—the Siberian Tit is an elegant and lively little species.

Creamcoloured Courser, *Cursorius Isabellinus*—Courvite Isabelle, *Fr.*—Corrione biondo, *It.* A native of North Africa and Siberia, frequently migrating to southern Europe, and even visiting Britain occasionally. Runs with great swiftness on the sandy plains, which it so closely resembles in colour, feeding on insects. Nidification unknown, or at best doubtful. The sexes are similar, but the young birds lack the black occipital patch of the adults. The general colour of the adults is delicate fawn colour above, lighter beneath. The plate is all that we can desire.

Two representations of the Pied Flycatcher, *Muscicapa luctuosa*—Gobemouche beefigue, *Fr.*—Schwartzrückiger Fliegenfanger, *G.* Common in France and Germany, but especially so on the European coasts of the Mediterranean; in England it chiefly occurs in Yorkshire, Cumberland, Westmoreland, and Derbyshire. It lives on small insects, in taking which it is extremely expert. Builds in hollow trees, laying from four to six pale blue eggs.

A male Whitecollared Flycatcher, *Muscicapa albicollis*—Gobemouche à-collier, *Fr.*—Fliegenfange mit-Halsbande, *G.* Mr. Gould has seen a specimen of this bird said to have been killed in England; but we perfectly agree with him in doubting its authenticity. "In winter, according to the above-quoted author [Temminck], both these species lose the black plumage of summer, and assume an uniform brown livery over all the upper parts, at which season the young, females and males, resemble each other: on the return of spring they moult again, the males assuming their black livery." Both these species are song birds, and the notes of each are different; the eggs also differ.

The Spotted Nightling, *Noctua passerina*—Chevêche, *Fr.*—Civetta gialla, *It.*—Kleiner Kautz, *G.* A sweet little cut, taken from a full-grown bird, and given of the natural size. Seldom occurs in Europe beyond the 55° of north latitude; common in the warmer districts of this quarter, and ranks as an occasional visitant in the British fauna. Builds in deserted castles and towers, and lays from two to four white rounded eggs. It is said to be of a savage and untameable disposition, but, according to Selby, is often kept in large wicker cages in France and Flanders, where it is exposed for sale. It feeds on Mice, Shrews, &c., and on small birds, which it takes at roost. It will also eat Locusts, Beetles, and other insects.

Common Dipper, *Cinclus aquaticus*—Cincle plongeur, *Fr.* Mr.

Gould's two figures—of an adult and a young bird, natural size—please us very well. The general habits of this species are familiar to our ornithological readers, but for a minute and masterly biography of the bird we refer to the *Naturalist*, No. iii., vol. i., p. 105.

An adult male, the size of life, very well delineated, of our familiar old friend the Barn Owl—*Strix flammea*—Chouette éffraie, *Fr.*—Schleyer Kautz, *G.*—whom we shall pass over with this slight notice, though, judging by the looks of the bird in the plate, it may be somewhat dangerous to offer him such an affront. Four artists have been employed on this plate.

The Shore Lark, *Alauda alpestris*—Alouette à-col-noir, *Fr.*—Berg Lerche, *G.* Beautiful birds, admirably drawn and coloured—both sexes, natural size. Inhabits the regions of the Polar Circle, and breeds in the marshy woody tracts of North America. A few specimens have been killed in Britain. The male is remarkable for the tuft upon its head, and its plumage in general is brighter than in the female. We hope all the ornithological readers of the *Analyst* have perused Wilson's interesting account of the Shore Lark, and shall therefore, at present, say nothing of its habits.

Splendid figures—of an adult and a young bird, half the natural size—of the Common Ossifrage, *Ossifraga albicilla*—Grand Pygarque, *Fr.*—Aquila commune, *It.* Dispersed, though rather sparingly, throughout Europe, being least abundant in our own island; much more frequent in many parts of America. Haunts large rivers and lakes, feeding on fish, on which account it is shot wherever it occurs. The following extract from Mr. Gould's work will doubtless interest the reader:—"In some parts of America the Osprey is very common, especially in the United States, where it makes its appearance on the return of spring: hence it is a welcome visiter, since its arrival betokens the opening of the rivers and the return of the hordes of fish. Here, along the banks of mighty streams, undisturbed and unmolested (save by the Bald Eagle, its professed enemy), it builds its nest in tall trees, constructing it of sticks and turf, so as to form a large mass, on the edges of which other small birds congregate and nidify without the slightest injury; in fact, the Osprey is a quiet bird, with little ferocity or daring in his temperament. His manner of taking his prey is very remarkable: hovering for a time on wide-spread wings over the water, he then sails about, intently gazing on the element beneath. The moment a fish appears, down he plunges like an arrow, almost disappearing beneath the water, but rising in a moment, with the victim grasped in his strong and incurved talons: throwing the spray

from his burnished plumage, he soars aloft, and hastens to his nest to share the spoil with his young, or feast upon it at leisure. Often, however, is the Osprey robbed of his prize. We have alluded to the Whiteheaded Eagle as his foe, who frequently chases him when loaded with his booty, which he is forced to relinquish to his stronger opponent. \* \* \* The eggs are generally three, dull white, blotched with dark red or yellow-brown." In young birds the feathers on the upper parts are tipped with white.

Tawny Pipit, *Anthus rufescens*—Pipit rousseline, *Fr.*—Brach Piper, *G.* Our author figures a pretty pair of birds, natural size. This Pipit—the *A. campestris* of Bechstein—is the largest of the European species, and is easily distinguished by the pervading yellow tint of the plumage. Visits France and Germany in spring, where it breeds in abundance; rare in Holland, and unknown in England. It is a terrestrial species, and builds on the ground, amongst loose herbage or clots of earth; lays from four to six roundish eggs of a pale grey colour, with russet markings. This bird offers no sexual or seasonal changes of plumage.

A lovely figure, in the summer plumage, size of life, of the Gull-billed Tern, *Sterna Anglica*, Montagu—Sterne Hansel? *Fr.* Mr. Gould says little or nothing respecting the geographical distribution of the Gull-billed Tern; but, according to other authorities, it abounds in the lakes and marshes of Hungary, and the confines of Turkey. Selby believes the Marsh Tern of Wilson to be the same bird, though Mr. Ord is of a different opinion. We cannot ourselves speak with certainty on the subject, but we rather incline to the view taken by Mr. Selby. This author tells us "it breeds in the marshes, making no nest, but depositing on the bare ground three or four eggs of an oil-green colour, spotted with dark brown. It has not been known to breed in England, although most of the specimens hitherto obtained, as well as that described and figured by Montagu, were in the summer or nuptial plumage." The term *Anglica*, for a bird so rare in England, is decidedly not good. *Sterna palustris* certainly offers a less objectionable designation.

PART VIII.—The Rufous Reedling, *Salicaria galactotes*, Gould—Becfin rubigineux, *Fr.* Our author's representation of an adult, natural size, is excellent in every respect. Inhabits the south of Spain. M. Natterer—the discoverer of the species—met with it at Gibraltar, "and killed two pairs at Algesiras." It appears to be less partial to fens and marshy grounds than the true Reedlings—of which our Sedge and Marsh Reedlings may be taken as typical examples—and we perfectly coincide with Temminck and Gould in

the propriety of removing it from *Salicaria* ; probably it will form a new genus.

Pleasing and characteristic figures of the Black Ouzel, *Merula vulgaris*, Ray—Merle noir, *Fr.*—Schwartz Drossel, *G.*, the male the best. The plumage of the female is beautifully executed, but the head is not so good, and the general colour is rather light for the adult female—approaching, in fact, the hue of the young of both sexes. This bird is common throughout Europe ; and we think, with Mr. Gould, that it ought to be ranged in a different genus from the Thrushes. Like the rest of the genus, it is of a solitary disposition—whence the generic term *merula, sola*—and its deep rich notes are familiar to almost every one. By the way, Mr. Gould evidently confounds the strains of the present species and those of the Garden Thrush ; probably in this case his remarks are not from personal observation.

Common Shieldrake, *Tadorna vulpanser*—Tadorne commun, *Fr.*—*Tadorna commune*, *It.*—Brandente, *G.* The figure of a male, three-fourths of the living size, is characteristic, but somewhat stiff, and the colouring occasionally too smooth and abrupt. Inhabits the whole of Europe, including Britain, in some parts of which it breeds in abundance. Singular as it may seem, the Shieldrake builds its nest at a considerable depth in Rabbit burrows, forming it of dried grass lined with down from its own breast, and laying from twelve to sixteen white eggs. The male and female sit alternately. It feeds on shelled *Mollusca*, insects, and marine plants. The female only differs from the male in being somewhat smaller, and it may be doubted whether even this would always prove a sufficient distinction. We have seen this beautiful bird in a semi-domestic state on ornamental water in various gentlemen's parks in the midland counties.

The Longtailed Tit, *Parus caudatus*—Mésange à-longue-queue, *Fr.*—Codibugnolo, *It.*—Schwanzmeise (literally Tailed Mouse !) *G.* The habits of the Longtailed Tit are too generally known to require detail in this place ; but we may observe that we believe our author to be in error in supposing that it ever lays so many as twenty eggs. We have rarely seen more than twelve.

A highly creditable figure of the Common Heron, *Ardea cinerea*—Héron cendré, *Fr.*—Sgarza cenerino, *It.*—Aschgrauer Reiher, *G.* Found in almost every part of the old world. The Common Heron is one of those birds, once abundant in England, which the drainage of fen lands and the cultivation of extensive wastes are rapidly banishing from the country : and, even while we applaud the

improvements thus effected, we cannot but contemplate with regret the total extermination of so beautiful and interesting a bird. The Common Heron is certainly, to some extent, a nocturnal species, though perhaps not to the degree intimated by Mr. Gould. It feeds on almost any kind of fish it can get, devouring an incredible number in a given period, on which account it ranks, in the *system* of the gamekeeper, in the class "varmint." It catches its prey standing in shallow water, waiting, with its head buried between its shoulders for hours together, until its hunger is appeased. It also destroys Mice, Rats, Shrews, Lizards, Frogs, &c., and even, according to Mr. Gould, aquatic insects. It builds in companies, forming a large coarse nest of sticks, lined with wool, on tall trees, and laying four or five bluish-green eggs. The only chance we can perceive of retaining the Heron in Britain is by leaving it unmolested in parks and other retired places, where they are easily induced to remain and breed. We have seen several of them in the park of Walton Hall, the seat of the benevolent and amiable wanderer, Charles Waterton, Esq., and their numbers are annually increasing under his kindly care.

Whiterumped Woodpecker, *Picus leuconotus*—Pic leuconote, *Fr.*—Picchio vario, *It.*—Weissrückiger Spechtelster, *G.* The male and female are figured of the natural size, but scarcely, we opine, in natural attitudes; we have not, however, much fault to find with the plate. This bird is not found in the south of Europe, and is not a British bird; "its true habitat appears to be Siberia and the adjacent parts of Russia, whence it occasionally emigrates as far as the North of Germany, but this is only in severe winters." In habits it resembles its congeners, and it feeds on various insects and larvæ. Lays its four or five white eggs in the hole of a tree, making no nest. "It may always be distinguished from the Greater Spotted Woodpecker of England by the blotches along the flanks, by the pure white of the rump, and the more extended crimson of the abdomen." The author believes that the only specimens of this bird in Britain are in his possession.

The Heath Madge, *Otus vulgaris*—Hibou moyenduc, *Fr.*—Mittler Ohreule, *G.* An extremely beautiful plate, representing the adult male, but we could have wished the plumage of the head had been a trifle more *mothy*. Inhabits the whole of Europe and many parts of America, haunting the depths of forests. In this country it abounds chiefly in Scotland and the north of England, feeding on Rats, Mice, Moles, Shrews, &c. It lays four white eggs in the deserted nest of a Crow, Magpie, or other large bird. The

young are covered with a full coat of white down, which lasts for a considerable time, and disappears gradually as the feathers advance." The male and female are similar.

Two well-executed figures of a pair of Black Redstarts, *Phænicura tithys*—Becfin rouge-queue, *Fr.*—Schwartz Rothschwanz, *G.* Several specimens of this elegant Redstart have been killed in England; but it is only an occasional visiter. Common in the rocky districts of North Europe, but rarely met with in level grounds. Mr. Gould has traced it all along the road from Frankfort to Berlin. The nest is built in the holes of rocks or old walls, and the six eggs are of a pale pink hue. The female is brownish all over, varying only in shade, the rump and outer tail-feathers being dull red.

The next plate represents our old winter friend the Fieldfare Thrush, *Turdus pilaris*—Merle litorne, *Fr.*—Tordella gazzina, *It.*—Wacholder Drossel, *G.* It visits the temperate portion of Europe in autumn, returning to its true habitat, the Arctic Circle, on the approach of spring. Our author quotes an interesting passage from Hewitson's *British Oology* relative to this bird, for which we refer the reader to that valuable work, a critical analysis of which will be found in previous numbers of the *Analyst*. In many parts of the country, the Fieldfare Thrush is in much esteem as a delicacy for the table; but we do not agree with Mr. Gould in thinking the shyness of the species to be caused by the eagerness with which it is pursued by gunners. We have found it fully as wild in counties where it is scarcely molested at all, as in places where it is most numerous destroyed. Cautiousness is, and ever will be, characteristic of the Fieldfare. The figure before us is, perhaps, a *little* too highly coloured.

The Horned Grebe, *Podiceps cornutus*, Lath.—Grêbe cornu, *Fr.*—Gehörnter Steissfuss, *G.* This species, the rarest of the British Grebes, has been described, in its winter and immature plumage, as *P. Caspicus* and *P. obscurus*. Extends throughout the Arctic Circle, but seldom occurs further south than England or the middle of the United States. Haunts inland lakes and large rivers, and likewise the sea-coast, agreeing in habits and nidification with its British congeners.

An adult, one fourth less than the natural size, of the Raven Crow, *Corvus corax*—Corbeau noir, *Fr.*—Corvo imperiale, *It.*—Kohlkrabe, *G.* The figure is too large for the size of the plate, and hence the attitude of this noble bird is somewhat cramped, but the colouring is very good. The Raven has an extensive geographical

distribution, but is much less common in Britain than formerly. Feeds on almost any animal or vegetable matter, fresh or putrid: Mr. Gould mentions "small *Mammalia*, eggs, reptiles, dead fish, insects, grain, and carrion;" and adds that "they have been seen feeding their young out of the nests of a rookery." The habits of the Raven are very generally known; let us, therefore, pass on to the

Little Tern, *Sterna minuta*—Sterne petit, *Fr.*—Kleine Meer-schwalbe, *G.*—of which our author presents us with a beautiful figure of the adult, natural size, and one, somewhat less to our liking, of a young bird. It passes the spring and summer on the European coasts, returning, of course, to warmer climes on the approach of the inclement seasons. It is common on our own shores, and Mr. G. has had specimens of it from India and America. "The shingly beach affords them a place of nidification, their eggs being deposited in a slight depression among the broken shells just above high-water mark; and so closely does the colouring of the eggs assimilate with the mingled mass around them, that they escape the casual search of inexperienced eyes." "Winged insects, small fishes, and marine animals, form their food: these latter they take from the surface of the water as they fly, but without diving, a power which the Terns do not possess."

The Common Gadwall, *Chauliodus strepera*, *Sw.*—Canard chi-peau, *Fr.*—*Anatra canapiglia*, *It.*—Schwatter Ente, *G.* Lovely representations of a most elegant species—an adult male and a *yearling*, three fourths of the living size. Common in the north of Europe, and has been received from the Himalayas; visits our coasts in tolerably large numbers in spring. The nidification is similar to that of the Common Duck (*Anas boschas*), and its flesh is considered a delicacy, but of this we ourselves know nothing. The sexes differ less than usual in this family, but still the male is distinguished by the superior brilliancy of his plumage.

The Garden Tit, *Parus hortensis*—Mésange charbonnière, *Fr.*—Kohlmeise, *G.* The plate contains a pair of these birds—the Great Tit of authors—very fair cuts. Mr. Gould is evidently not aware that this bird possesses a song; and all the notice we shall now take of the habits of this lively and amusing bird will be by stating, as we have elsewhere done, that the strain "consists only of two notes, repeated alternately and in rapid succession. The notes are at the interval of a major third from each other."\*

\* *British Song Birds*, p. 157.

Whiteheaded Osprey, *Pandion leucocephalus*—Aigle à-tête-blanche, *Fr.*—Aquila di-coda-bianca, *It.* Two spirited figures, by Lear. A native of the northern and temperate parts of both continents, but much more abundant in America. The white on the head and tail are not observed in full purity till the third year. This species was formerly confounded with *Ossifraga albicilla*. Wilson has described its habits in his usual felicitous manner.

Meadow Bunting, *Emberiza cia*, Linn.—Bruant de-pré, *Fr.*—Zivolo dei-prati, *It.*—Zip Ammer, *G.* Rather pretty cuts of a pair of these birds. “Although common in the meadows bordering the Rhine, as well as in the southern parts of France, Italy, Spain, and adjoining the Mediterranean, it does not appear to be distributed in the north, as is the case with so many of its congeners, neither Holland nor England being among the places of its habitat.” The Meadow Bunting closely resembles our Reed Bunting in habits and somewhat in plumage. Indeed, it has been confounded both with *Emberiza schæniculus* and *E. Lesbia*. “The food of this bird, as its feeble bill indicates, consists of the small seeds of farinaceous plants, such as millet, canary, &c. It constructs a nest in bushes and tufts of herbage, and not unfrequently on the ground; the eggs are five in number, of a whitish colour, marked with a few lines of black.” The plumage of the female is slightly more sombre than that of the male.

The Grey Squaterole, *Squatarola cinerea*—Vanneau pluvier, *Fr.* The only European species of the genus, which, as our author observes, forms a link between *Charadrius* and *Vanellus*. Inhabits the north of Europe and America, but little is known of its nidification. It is common on our sea-coasts, and well known to persons residing in such situations; but we cannot settle the question whether or not it regularly breeds with us. The adult bird, in spring plumage, in the plate lying open before us, is remarkably well done.

Black Chat, *Saxicola cachinnans*, Temm.—Traquet rieur, *Fr.*—a bird classed, singularly enough, by Gmelin, Latham, Cuvier, &c., in the genus *Turdus*; and we feel certain that it will not remain long in company with the Chats. The Black Chat is shy and timid, frequenting lonely rocky places, and feeding on insects. “Nidification,” says M. Temminck, “unknown.” These birds are black, with a white rump, and part of some of the tail-feathers white; the female is known by her duller hue. We much admire the plate, containing a male and female, natural size.

Two figures—an adult and a young bird—of the Ring Pigeon, *Columba palumbus*, Colombe ramier, *Fr.*—Colombaccio, *It.*—Ringel



Taube, G., in Lear's best style ; both are unexceptionable, and may truly be called living portraits. Dispersed all over Europe. We need not detail its habits. Mr. Gould informs us that a pair of these birds once built a nest and laid two eggs in confinement ; and we have no doubt it would frequently do so if properly managed, despite the agreement to which most ornithologists have come, that it never has and never will breed in domesticity. Those who have not had the pleasure of feasting their eyes on this plate, scarcely know what a good ornithological drawing is.

The eighth part concludes with two lovely figures of the Spotted Sandpiper, *Totanus macularius*—Chevalier perlé, Fr.—Gefleckte Strandläufer, G.—and as we have said so much ourselves, we shall now permit the author to have his say. Here then follows a part of his account of the bird :—"This elegant little Sandpiper is most intimately allied to the well-known Common Sandpiper (*Totanus hypoleucos*), which pays its annual visit during the summer months to the brooks and rivulets of our island ; but, unlike this latter bird, its visits are of the most rare occurrence, no instance having come under our own observation. M. Temminck states that it occurs accidentally on the shores of the Baltic and in some of the provinces of Germany, but never in Holland. The native country of this bird appears to be the arctic regions of both continents ; but it is most abundant in America, extending from these high latitudes over the whole of the United States, where it appears to take up the same situation as the *Totanus hypoleucos*, frequenting Pennsylvania, and the rivers Schuylkill and Delaware, as we are informed by Wilson, from whose valuable work we have taken the liberty of extracting an account of the habits and manners of this bird, which we have not had the opportunity of observing." The rest of the description is, accordingly, from Wilson, which it will not be necessary to quote. We shall have much pleasure in resuming our critical notices of the valuable and ably-executed *Birds of Europe* in our next.

## SOME REMARKS ON THE PHILOSOPHY AND OBSERVANCES OF SHAKSPEARE.

### VI.—HAMLET.

Of all Shakspeare's plays, Hamlet has been the most studied and the least understood. As a subject of criticism, it has attracted the attention of our most celebrated authors, who have all made more or less approach to its elucidation, in proportion to the metaphysical or poetical tendency of their minds: nevertheless, the character of Hamlet is still an uninterpreted mystery.

In reading this play, one thing is obvious—that our impressions become so various and our opinions so contradictory, that we leave it with but a vague and painful idea of the *whole*. The presumptive inconsistencies in Hamlet's character destroy in our minds its unity and completion: in this rests the difficulty of the task to abstract our ideas from particulars, rejecting every opinion of the parts until, by a careful comparison of them all, we come to a better understanding of the beautiful and homogeneous creation of Hamlet. No study is, perhaps, more difficult than to follow such a subject with an analytical criticism from part to part: for it is the essential excellency of Shakspeare, that he is always suggestive—a moral telescope, which opens to our view new and brilliant imaginations, filling the mind at every glance with beautiful and profound reflections. It is no easy task, then, to carry on these successive impressions, as it were mapping them together into one complete structure. Hamlet is the masterpiece of human genius; it combines all that is sublime in thought acting on one of the most perfect of human beings: his apparent inconsistencies belong to his greatness; a common mind so circumstanced would have exhibited none of his conduct, but have gone at once, beast-like, to his revenge.

Hamlet forejudged every act, and reasoned to the utmost limit of fallibility; it is no wonder, therefore, that his biography is seldom read and never understood. The character of Hamlet is a triplet, compounded of three causes—the physical, the spiritual, and the educational: this triad, acting in concert under most peculiar circumstances, produced an effect or developed a character which, as a whole, is contrary to its parts.

To examine the character of Hamlet, we will take these causes separately, and by examining each individually we may, perhaps, better understand the profound mystery of his character, and be able

to reconcile those inconsistencies and defalcations which awaken our surprise and leave us in doubt.

The physical constitution of Hamlet is the very diapason of his mind :

“ *Ophelia*.—Oh ! what a noble mind is here o’erthrown !  
 The courtier’s, soldier’s, scholar’s eye, tongue, sword :  
 The expectancy and rose of the fair state,  
 The glass of fashion and the mould of form,  
 The observ’d of all observers ! quite, quite down !  
 And I, of ladies most deject and wretched,  
 That suck’d the honey of his music vows,  
 Now see that noble and most sovereign reason,  
 Like sweet bells jangled, out of tune and harsh ;  
 That unmatch’d form and feature of blown youth,  
 Blasted with ecstasy ! ”

We at once recognize a perfect organization, that exact proportion of parts, that symmetry of form, that fine adaptation of the intellectual, moral, and animal, which distinguishes the sublime creations of art ; it is the preponderance of a particular faculty which directs the conduct of mankind, which makes opinion prophetic and action speculative. But in the very few whose cerebral development approaches this perfect agreement, one faculty so equipoises the other as to create, by that reflective anticipation of the soul, a possible uncertainty. The greatest minds are always the most doubtful. Unhappily, the *general temperament* of Hamlet was dis-analogous with the concordance of his structure, and thus assisted in producing those strange self-contradictions ; a temperament, or the bodily liability of his nature, at variance with his moral consciousness ; that melancholy *atrabilioussness*, denoted great and violent exertion, but conjoined with the inert lymphatic habit, his energy and passion are momentary and his will deadened by lethargy ; and thus

“ the native hue of resolution  
 Is sicklied o’er with the pale cast of thought ”—

Hamlet, though he succumbed to the *necessity* of his nature, was, nevertheless, fully aware of the defect—

“ Yet I,  
 A dull and muddy-mettled rascal, peak,  
 Like John a-dreams, unpregnant of my cause,  
 And can say nothing.”

and the whole of this beautiful speech to Guildenstern is full of dark sublimity :—

“ I have of late (but wherefore I know not) lost all my mirth, foregone all custom of exercises, and, indeed, it goes so heavily with my disposition, that this goodly frame the earth, seems to me a sterile promontory; this most excellent canopy, the air—look you, this brave o’erhanging firmament, this majestical roof fretted with golden fire—why it appears no other thing to me than a foul and pestilent congregation of vapours. What a piece of work is man !—how noble in reason ! how infinite in faculties ! in form and moving, how express and admirable ! in action, how like an angel ! in apprehension, how like a god ! the beauty of the world—the paragon of animals ! And yet, to me, what is this quintessence of dust ? Man delights not me, nor woman neither ;”

and again the soliloquy, profaned by the mouthing of every whining school-boy,

“ Oh, that this too, too solid flesh would melt,  
Thaw, and resolve itself into a dew !”

The whole play is craped with the gloom of his nature. Such was Hamlet, a compound in physical temperament : the dispositions of his nature were antagonists ; “ one not easily moved, but being so is moved in the extreme.”

Without going into an explanation of what is meant by the spiritual nature or mind of Hamlet, and however the physical is implicated in the moral character, we are content to distinguish by this term the *habitual* characteristic of Hamlet’s mind. We speak of Hamlet as a being always existing ; we look upon him as a monad set aside for our interpretation and profit. The mental peculiarity of Hamlet was reflection, deep, searching, profound thought ; from his earliest recognitions comparisons were held ; he looked upon every event, upon every action, as implying the past and future in their causes and consequences. He had beheld human nature in its most subtle and occult appearances, when vice becomes more baneful because more concealed. The evil which vice loses with its grossness is made up in its permanency and insidiousness ; and thus Hamlet disdained the polished hypocrisy of the court, and chose his friend in the sane and firm-minded Horatio.

Reflection with him is a moral excess ; his mind is a profound of thought ; he analyzes every thing, dissects the conduct of mankind, and refers every act to some imperfection, either of weakness or wickedness. The complexion of his ideas was always gloomy ;

his wit severe and sarcastic. He is a human Mephistophiles without sin, before whom the circumstances of existence are laid bare, the original cause of intent and action is defined, and goodness itself exhibited as the deceitful cloak of selfishness. Thought is ceaseless; it is a monomania that admits of no pause. The actions of men seem frivolous, and life itself, by a dark comparison with itself, is beheld with indifference, as but a painful suspense. Hamlet was a man to become sick of the uses of the world, scorning what he despised. The ambition of the soldier, the phrenzy of the lover, the policy of the courtier—he had tried them all, and left them as a madman's labour. Hamlet, though sceptical as to creeds, was firmly religious. But

“that the Everlasting had not fixed  
His canon 'gainst self-slaughter;”

he would have sought in the grave repose from the oppressive tediousness of life.

Hamlet educationally was a scholar and a gentleman; the fellow-student of Horatio at Wittenberg, where congregated all the learned men of the day. A metaphysical complexion marks the learning of that time; the mind was for ever wrestling in the Palestra of abstract reasoning. The quiddits of the Aristotelian school occupied the place of experimental philosophy, oppressing the intellect with infinite and intangible ideas. We perceive Hamlet complains to Rosencrantz that he could not reason, though he is continually touching upon his favourite logic:—

“*Ham.*—O God! I could be bounded in a nutshell, and count myself a king of infinite space; were it not that I have bad dreams.

“*Guil.*—Which dreams, indeed, are ambition; for the very substance of the ambitious is merely the shadow of a dream.

“*Ham.*—A dream itself is but a shadow.

“*Ros.*—Truly, and I hold ambition of so airy and light a quality, that it is but a shadow's shadow.

“*Ham.*—Then are our beggars, bodies; and our monarchs and outstretch'd heroes the beggars' shadows. Shall we to the court? for, by my fay, I cannot reason.”

Yet the genius or reflective faculties of Hamlet made him an experimental philosopher; he not only idealised, but he observed, and derived no little of his learning from the visible world. His knowledge of natural philosophy is evidently the result of observation. That he was a diligent student at Wittenberg there is no doubt, and he most probably aspired to attainments of the highest possible

order. His soliloquy, after the apparition of the Ghost, displays his literary practises :—

“ Remember thee !

Yea, from the table of my memory  
I'll wipe away all trival fond records,  
All saws of books, all forms, all pressures past,  
That youth and observation copied there ;  
And thy commandment all alone shall live  
Within the book and volume of my brain,  
Unmix'd with baser matter.”

Hamlet was an accomplished gentleman ; he would not bate a jot of excellence : he went so far as to copy the extravagancies of good breeding, and, like our modern gentleman—but here the comparison drops—to write unintelligibly :

“ I once did hold it, as our statists do,  
A baseness to write fair, and labour'd much  
How to forget that learning.”

Hamlet should ever be “ the glass of fashion ;” but, in the comparison, how odious we become !\*

Such is Hamlet in his physical, moral, and intellectual conjunction ; perhaps the most perfect character within possibility—acting without any express and definite purpose of ambition to regulate and direct his conduct.

It is justly said that Hamlet is the most Shakspearean of all Shakspeare's plays. It is, in fact, the embodying of the poet's genius ; exhibiting the most sublime historical picture. Like the Orestes of Æschylus, Hamlet is impelled by a necessity to become the avenger of blood, self-devoted by their own internal consciousness to the perpetration of a penalty that suffers no palliation. There is no arrangement, no decree, no customary process of condemnation ; but, sitting on the judgment-seat of the secret soul, the *fate* of Orestes or the genius of Hamlet holds the immutable decree. But the position of Hamlet is infinitely the more dreadful. Orestes was the minister of the gods : the maternal bond with the Grecians was slavish ; hence there are few pauses in the purpose of

\* The learning of Shakspeare is so various, that he baffles all his commentators : many suppose him, reasonably enough, to have been a student in physic—or how could he have become so acute a physiologist ; while, in the *Legal Observer*, his studies in the law are seriously treated of and proved, from the use of terms which, they say, none but a lawyer could have known.

Orestes. He was the predestinated avenger of the Deity ; Hamlet, on the contrary, is, by his nature, at variance with himself. He revolts from an act that has no other warrant than a supernatural apparition, and which, reasoning upon, becomes itself an object of suspicion :

“ The spirit that I have seen,  
May be a devil : and the devil hath power  
To assume a pleasing shape.”

While from his philosophy, that ever-busy, capable understanding, he doubts even the reality of the apparition ; that it is a delirium of the heat-oppressed brain, directed by the enemy of souls ;

“ Yea, and, perhaps,  
Out of my weakness and my melancholy  
(As he is very potent with such spirits),  
Abuses me to damn me.”

The old question of Hamlet's madness is at once answerable from this very reason, that he is even reasoning against what may possibly be a delusion. He is too wise to err, and yet not wise enough to be resolved. That Hamlet is *not mad* is self-evident ; his seeming insanity is predetermined from the first appearance of the Ghost, before which, though we perceive the same dark, meditative, melancholy disposition, yet withal he is composed, and even affectionate in his reply to the Queen,

“ I shall in all my best obey you, madam.”

But directly after the exposition of his father's murder he resolves on his conduct, as if the circumstances rendered it essential :—

“ There are more things in heaven and earth, Horatio,  
Than are dreamt of in your philosophy.  
But come ;—  
Here as before, never, so help your mercy !  
How strange or odd soe'er I bear myself,  
As I perchance, hereafter shall think meet  
To put an antic disposition on.”

The wicked speed with which his mother wedded to his uncle soured his temper, and seems to have inspired him with a presentiment that “ it could not come to good.” The hatred which he bore to his uncle was natural : altogether different from Hamlet, a crafty, fawning sensualist, he could feel nothing but aversion for

the delicate-minded and meditative Hamlet. There was no resemblance between them, and hence his cozenage appears so offensive. The repugnance which Hamlet had to Polonius, his conduct to Ophelia, his retaliation upon Rosencrantz and Guildenstern, have been made the subject of much censure ; and, without thinking on the whole bearing of the play, the reader is glad to find an excuse in the supposed madness of Hamlet for the want of common humanity. Let us reconcile this discrepancy. Hamlet *never* tolerated Polonius ; though he was a wise, he was too wily a courtier to please Hamlet, who saw right through the disintegrality of his conduct. Polonius was no bad resemblance to the crafty Metternich, with less talent but more wisdom. Polonius cared not how he played the fool so that he was not a fool to himself. To fancy Polonius the friend of Hamlet is to couple Thersites with Ulysses. Hamlet would have listened to the ribaldry of a jester, but he could not endure the compliments of a courtier. He always despised Polonius ; but the gentle flower born to this old sycophant, the loved and loving Ophelia ! Hamlet was her worshipper, but in that was he peculiar. Hamlet did not love like the rest of the world ; his love was full of elegance and truth ; no jealousy, no caprice, but tenderly severe, he would teach a woman to reverence herself. But the current of his thoughts was turned awry, he suspected Ophelia of espionage, he found in his love an excuse for his pretended insanity, and, without thinking on the consequences, he spoke as no man should have spoken to a chaste, fond-hearted maiden. Yet he loved her—

“ forty thousand brothers  
Could not, with all their quantity of love,  
Make up my sum.”

His school-fellows, Guildenstern and Rosencrantz, deserved their penalty : they would have played upon him, would pluck out the heart of his mystery, “ delve to the bottom of his soul,” and then lend their aid to the bloody villain for the destruction of Hamlet. His conduct was justified by their own. But let us remember his friendship for the healthy-minded Horatio—that shadow of himself—one degree lower than Hamlet, with less passion, constant, brave, and honourable. There is no higher eulogium conceivable, than that which Hamlet passes on his friend ; it is a beautiful outbreak of admiration, love, and truth :

“ *Ham.*—Horatio, thou art e’en as just a man  
As e’er my conversation cop’d withal.  
“ *Hor.*—O my dear lord,—



*“Ham.—Nay, do not think I flatter:  
 For what advancement may I hope from thee,  
 That no revenue hast, but thy good spirits,  
 To feed and clothe thee? Why should the poor be flatter’d?  
 No, let the candied tongue lick absurd pomp,  
 And crook the pregnant hinges of the knee,  
 Where thrift may follow fawning. Dost thou hear?  
 Since my dear soul was mistress of her choice,  
 And could of men distinguish her election,  
 She hath seal’d thee for herself: for thou hast been  
 As one in suffering all, that suffers nothing;  
 A man, that fortune’s buffets and rewards  
 Hast ta’en with equal thanks; and bless’d are those,  
 Whose blood and judgment are so well commingled,  
 That they are not a pipe for fortune’s finger  
 To sound what stop she please: Give me that man  
 That is not passion’s slave, and I will wear him  
 In my heart’s core, ay, in my heart of hearts,  
 As I do thee.”*

It may be impertinent to transcribe, but that, like the Cartoons of Raphael, Shakspeare must be studied often to be justly appreciated. Hamlet and Horatio possess those points in common which make them friends. Horatio is a scholar, a philosopher, but no enthusiast; his blood and judgment were well commingled: had *his* father been the victim, he would at once have proceeded to the accusation and executed the penalty—he would have “crowned his thoughts with acts.” Horatio stands between Laertes and Hamlet; he possesses neither the impetuosity of the former nor the tardiness of the latter; he was not passion’s slave; but one whom fortune had tried, and experience made wise without its prejudice and selfishness: he was an example of a sound mind in a sound body. Though he does not ascend to the moral grandeur of Hamlet, he is throughout, even from the first meeting at Elsinore, a dignified, well-bred man. Nothing can be more beautiful than his address to the Ghost. Without the excited frenzy of Hamlet, he behaves with boldness and reverence:

*“Hor.—What art thou, that usurp’st this time of night,  
 Together with that fair and warlike form  
 In which the majesty of buried Denmark  
 Did sometimes march?—By heaven I charge thee, speak!”*

The honest confession of Horatio to Bernardo, “Before my God, &c.,” is just the character of a practical philosopher, incredulous without being sceptical. The whole of the first scene is a fine introduction to the play; the place, the hour, the dialogues, lean all

to one point, and by the solemnity tones the mind to a right key with the incidents of the play. The appearance of Hamlet in the second scene, in company with the King, Queen, and courtiers, is essential to the development of his character. Any other mind than Shakspeare's would have introduced him with more positive effect by himself, or with Horatio and Marcellus ; but Hamlet, as it were, gives us his own biography.

Hamlet's interview with Horatio, his fellow-student, friend, and confidant, relieves and quickens our minds ; it throws us back to the truant hours at Wittenberg, when Hamlet was the high-minded, elegant Prince of Denmark, without a scathe of grief. There is a touching affection in this dialogue with Horatio which we see no where after. Hamlet, surprised, listens eagerly to Horatio's account of the Ghost, and, true to nature, inquires of the form, features, and personation of his father. He pauses a moment abstractedly, breaks into a passion of words, and then abruptly leaves. The eagerness which Hamlet manifests to learn the mystery of the Ghost, though contradictory to his after inertness, is perfectly in agreement with his hypochondriacal idiosyncrasy ; at first passionately excited by the expected novelty, full of a thousand alarms and imaginings as to the cause of such a visitation ; whereas, after the revelation of the murder, he falls back again, with a satiated curiosity, into the same or even a more profound abstraction, out of which he occasionally starts as from a dream, for a time impetuous and self-criminating. The character of Hamlet, then, is true to nature. The inconsistencies belong to one who would be a perfect being were he not a fallible creature. He is wise, but, not being essentially prescient, every act and intention is "sicklied o'er with the pale cast of thought." The name of action is lost from the many-sidedness of his reflections, that strike into all the uncertainties of a distant event. It may naturally be asked, then, what did Hamlet anticipate, or what direct process of revenge did he purpose ? We reply, None definitively, but, by a watchful observation of the King, to manifest his guilt beyond contradiction, and to punish him at a time suitable to an act so dreadful, though inevitable. To kill a king, even though by a prince of the blood, is not easily accomplished, and especially when that prince was Hamlet, naturally, nay, religiously merciful. Death with him was nothing, he did not value life at a pin's fee ; but the dread of something after death puzzled his will.

"To sleep—perchance to dream !"

It is very evident that Shakspeare intended this play as the bio-

graphy of an unique character ; it was the highest creation of the poet's genius. Superior to sympathy, his misery was too agonizing to be participative or communicable ; there is no amiable imbecility in his complaints, no lachrymose sentimentalism : wrapt in the awful originality of his genius, the majesty of Hamlet is unapproachable ; every character, like rays of light converging to a point, exalt his genius and give to him a striking distinctiveness. Othello, Lear, Macbeth, Romeo, display particular passions—jealousy, despair, ambition, love ; they are single throughout : but in Hamlet, the man, the complexion of his thoughts, the structure of his soul, the biography of Hamlet is before us ; a thousand feelings and dispositions, disanalogous in their individual tint, like precious gems, are skilfully arranged in their multitudinous varieties and degrees of light and shade, forming altogether the most homogeneous and sublime portraiture of man.

Of all the actors\* who have ever conceived the character and personated Hamlet, Macready is the only man. To behold his pale, solemn, classical face, abstracted from all around him ; his quiet, graceful movements ; his features answerable to every complexion of his varied thoughts ; altogether prepare the beholder, from his first appearance, for the exhibition of a character peculiar, metaphysical, and spontaneous. His first reply to the King—"a little more than kin and less than kind"—and to the Queen, is searching, sarcastic, and sorrowful. Through the whole of the play, Macready is no longer himself ; he is Hamlet, he possesses you with his own passions, and does more to elucidate the sublime character of Hamlet than any actor, living or dead. So self-elevated was my mind after seeing Macready in Hamlet, that I was Hamlet in soul for a month after. The barking criticism of *mannerism* is at least a compliment to Macready in his personation of Hamlet ; for no one, however great the genius, could represent the scholar and the gentleman, but he whose education and intellect were of the highest order.

May I never belong to those "sophisticated mighty wise," who know too much *to know anything*. As for the million, Hamlet, under all forms, must be "caviare to the general." *Sus apage haud tibi spiro.*

W.

\* Like the inimitable Mrs. Martha Bethune Baliol, who always expressed her gratitude to any author whose works she had read, as one to whom she was personally indebted, so I feel the sincerest pleasure in mentioning the name of Macready as an actor whom I have never beheld but with admiration and delight.

## ANALYSIS OF COMBE'S "SYSTEM OF PHRENOLOGY."\*

MR. Combe bespeaks attention to his *System* and his *Science* in an ingenuous prefatory account of the studies, observations, and reflections which enabled his own mind to admit the truth, and to discern the extensive usefulness, of those principles whereon the new mental philosophy reposes its foundations. This modest and candid example of an honest inquiry to ascertain the truth, is followed by an Introduction, composed of several very important topics, which may be enumerated. These are, instances of opposition to the greatest scientific discoveries; the brain is the organ of the mind; there is a plurality of mental faculties, with a corresponding plurality of cerebral organs; the size of organs influences their power, while temperament and disease modify the influence of size; exercise invigorates the cerebral organs and facilitates their action; sketch of the efforts of metaphysicians, moralists, poets, divines, and physiologists, in determining the philosophy of mind; history of Dr. Gall's discovery; and a general view of the functions of the spinal marrow and the nerves. These subjects are discussed *seriatim* with singular perspicuity and success. The section on temperaments, or constitutions, is valuable, and well-coloured figures accompany it as illustrations.

Every body talks of constitutions; few can define what is signified by the term. Mr. C., at p. 43, adopts the usual distinction of four primary constitutions—the lymphatic, sanguine, bilious, and nervous; and these are attended with different degrees of activity in the mind and the brain. They depend upon the ascendancy of particular systems of the body, in man and animals: thus, when the brain and nerves are predominantly active, they produce the nervous constitution; when the lungs, heart, and blood-vessels predominate in their actions, they give rise to the sanguine constitution; the bilious constitution results from predominancy of the muscular and fibrous systems; and the lymphatic proceeds from predominancy of the glandular and assimilating systems. The different constitutions are indicated by external bodily signs, which are open to observation. The lymphatic is distinguishable by a round form of the body, softness of the muscles, fulness of the cellular tissue under the skin, fair hair, and paleness of the surface of the body:

\* Fourth edition, two vols., 8vo.; Edinburgh and London. 1836. pp. 933, with sixty-one figures and plates.

it is accompanied by languid vital actions, weakness and slowness of the circulation, and sluggishness and feebleness of the brain in performing its natural functions. The sanguine is denoted by well-defined forms, moderate plumpness of person, tolerable firmness of flesh, light hair inclining to chestnut, blue eyes, and ruddiness of the cheeks, with a fair complexion: it is marked by strength and velocity of the pulses, fondness for exercise, and an animated countenance, with proportionate activity of the brain. The bilious is recognized by black hair, dark skin, moderate fulness and much firmness of flesh, with a harshly expressed outline of the person: it is attended with great energy of the brain and vital organs, while the face exhibits strong and decided features. The nervous is characterised by fine thin hair, thin skin, small thin muscles, quickness of muscular motion, paleness of countenance, and often delicate health. In this constitution, the whole nervous system, including the brain, is predominantly active, and the mental operations are proportionally vivacious. Let it be observed, however, that a simple constitution rarely occurs in any individual; two or more are generally combined in the same person. The bilious-nervous is a common combination: it gives strength and activity. The lymphatic-nervous is not uncommon; it produces sensitive delicacy of mind, conjoined with indolence. And, from the nervous-sanguine, great vivacity results, but it is without corresponding vigour or energy.—That whereof every body talks, every body should try to know: these notes of Mr. C.'s will instruct the ignorant.

Mr. Combe's introductory discussions are followed by an exposition of the principles of Phrenology; and, under this department of his *System*, he undertakes and accomplishes a concise illustration of the following subjects—a discrimination of mental dispositions and talents; a popular description of the brain, cerebellum, and skull, of its bones and frontal cavities, and of the integuments of the brain; a practical application of the phrenological principles; observations on the length, breadth, and forms of the cerebral organs; account of the phrenological bust and its progressive improvements, in shewing the situations of organs and their proportions; on the terms used to denote the gradations of size in the organs; it is the relative, not the absolute, size of the organs that indicates the predominance of particular talents or dispositions; remarks on the brains of the lower animals; the distinction between power and activity; a solution of the inquiries—What is a faculty, and is the mind simple? A division of the mental faculties, with a view of their natural language. As a mere intellectual exercise, the study

of these diversified questions should prove to be both agreeable and instructive to the fairly inquisitive mind.

Mr. Combe divides the mental faculties into the affective, which are the propensities and sentiments, and the intellectual, which constitute the perceptive and reflective powers. He states preliminarily that, with regard to many of the faculties and their organs, the observations have been made to such an extent that their functions are held to be ascertained ; and, in the case of others, where the observations have been fewer, the functions are represented as being only probable. Among phrenologists, there is no difference respecting the kind of manifestations which accompany the faculties and organs set down as established ; their views differ merely concerning the result of the metaphysical analysis of the feelings and intellects, and the order of their arrangement. Mr. C. notices briefly the history of the discovery of each faculty and its organ, and he relates a few cases in illustration of its particular function ; but he considerably abstains from swelling his volumes, by accumulating the multitudes of facts which constitute the evidence wheron Phrenology is founded. His method of proceeding is, to refer distinctly to the authorities which elucidate and confirm his propositions, and he requests those persons who desire philosophical conviction, to resort directly to nature, which is always within their reach ; for, he avers emphatically, well-grounded conviction can be obtained only by personal observation.

Mr. Combe propounds his doctrines regarding the affective faculties or feelings in two separate sections : the first includes the eleven propensities, and in the second he places the twelve sentiments ; an arrangement obviously quite natural, and also very convenient for elucidation.

*Propensities.*—With respect to these mental faculties, Mr. Combe maintains the general proposition that they do not form ideas or procure knowledge, but that their sole function individually is to produce a desire, disposition, tendency, or impulse of a specific kind. They are common to man with the lower animals, and their chief object is to secure the preservation of each individual himself, his family, or his tribe. In this world there is ample and delightful scope for their proper activity, even in this way ; but they are prone to deviations from their original intents, unless their motives be directed by those higher faculties of the mind which originate the principles of reason, virtue, and religion.

*Sentiments.*—These faculties excite feelings or emotions of a particular sort joined with an inclination to act. They differ from in-

tellectual perceptions in being accompanied with a peculiar vividness which every body understands, but which it is impossible to express by any verbal definition. They may be called into action by the presentment of the external objects naturally related to them, as danger is to fear and august appearance is to reverence, or by the spontaneous activity of themselves and their organs. Mr. Combe distinguishes the sentiments into two kinds—those which are common to man and the lower animals, and those which constitute the peculiarly human character. The former he denominates Self-esteem, Love of Approbation, and Cautiousness ; the latter are Benevolence, Veneration, Firmness, Conscientiousness, Hope, Wonder, Ideality, Wit or Mirthfulness, and Imitation. There are, however, reasons for concluding that Firmness, Imitation, and Benevolence, are possessed by some of the beastial tribes. Mr. C.'s philosophy of Justice is truly valuable, as affording a safe practical guide in the operations of self-discipline and philanthropy. While attempting to discharge the sacred duties of doing good and reforming evil, man should zealously teach himself to know and to obey implicitly the unerring dictates of Conscientiousness, the source of pure justice, which is universal, immutable, and eternal.

Mr. Combe's division of the intellectual faculties has them under three heads—the sentient, perceptive, and reflective powers of the mind.

*The Sentient.*—These faculties, which are usually designated the external senses, bring man and animals into communication with the outward world. They are the tactile sense, or that of touch ; the gustative, or that of taste ; the olfactory, or that of smell ; the auditory, or that of hearing ; and the visual, or that of sight or vision : and, apparently, their common generic name may have been originally suggested by the circumstance of their severally possessing a set of organic appliances external to the brain, wherein every distinct primary sense has its own proper actual organ, by means of which every individual sentient faculty executes its own appropriate function. General readers will find a rich mine of useful knowledge in this section of the *System*, and the experienced physiologist may peruse it with advantage.

*The Perceptive.*—These faculties procure knowledge of external objects, their physical qualities and various relations : they form ideas, and their action is attended with a sensation of pleasure ; but this has less intensity than the emotions produced by the higher affective powers or sentiments. They experience and impart the per-

ceptions or distinctive knowledge of Individuality,\* Form, Size, Weight, Colour, Locality, Number, Order, Eventuality, Time, Tune, and Language. Mr. Combe concludes his instructive enumeration of facts and inductions concerning the knowing or perceptive faculties with some explanatory observations, which may furnish the student of mental science with extraordinary light in furtherance of his favourite pursuit.

*The Reflective.*—These faculties judge not of the qualities and relations of external objects, but of the relations of different classes of ideas produced by the perceptive faculties: they minister to the direction and gratification of all the other mental powers, and constitute what is colloquially called reason or reflection: in Mr. C.'s *System*, Comparison and Causality are their names. He crowns his most admirable views respecting the nature and functions of these two faculties with a truly sublime and triumphant demonstration of the sophistries of those atheists who, with an insane magnanimity, adventure to propose arguments in support of their impiety in denying the existence of God. Mr. Combe finishes this momentous discussion with these remarks:—"I have stated the argument in the plainest language, but with perfect reverence; and we are arrived at the conclusion that the faculty Causality is silent as to the cause of the creator of man, and cannot tell whether he is self-existent or called into being by some higher power. But thus far it can go, and it draws its conclusions unhesitatingly, that He must exist, and must possess the attributes which it perceives manifested in His works; and, these points being certain, it declares that He is God to us; that He is our Creator and Preserver; that all His qualities, so far as it can discover, merit our profoundest respect and admiration; and that, therefore, he is to man the highest and most legitimate object of veneration and worship." Here, then, we clearly perceive that the utmost powers of human reason are subjected to an insurmountable limitation: but the most precious book of inspiration comes to its aid, and reveals to the finite mind of man the everlasting truth that his Creator is God without beginning of days or ending of years, and that the heavens and the earth, with all that constitutes the universe, are the works of His Almighty Word.

\* The organ of this intellectual faculty is situated in the middle of the lower part of the forehead, immediately above the top of the nose. An exquisite portrait of Michael Angelo is given in illustration of its size and position.



After giving a concise, but exceedingly instructive, sketch in evidence of the perfect adaptation of the external world to the intellectual faculties of man, Mr. Combe proceeds to explain the modes of action of the different mental powers. All the faculties tend to action, and when active in a due degree they produce actions good, proper, and necessary. It is excess of their activity and its ill direction that occasion abuse. Every one of them, when in action, from whatever cause, excites the kind of feeling, or forms the kind of ideas, which result from its natural constitution. Hence, it is clear that there must be a legitimate sphere of action for them all. Not one of them is or can be necessarily and inherently bad ; otherwise God must have deliberately created faculties with their organs for no other purpose than to lead us into sin ; an impious notion, which, if cherished, would inevitably be vented in the expression of blasphemy.

According to Mr. C.'s *System*, the propensities and sentiments cannot be excited to action directly by a mere command of the will : we cannot conjure up the emotions of fear, compassion, and veneration, by simply willing to experience them ; hence, we are not accountable for the absence of any emotion at a particular time. These affective faculties, however, may enter into action, from an internal excitement ; and then the desire or emotion which each produces, will be felt whether we will to experience it or not : in such cases it is man's duty to manage the emotion, under the guidance of reason, and the government of conscience over-ruling the other moral sentiments. Again ; these faculties may be called into action, independently of the will, by the presentation of the external objects fitted by nature to excite them. In such instances, the power of *acting* or of *not* acting, is dependent on the will ; but the power of *feeling* or *not* feeling is not so ; the mind cannot will *not to see* a tree or a mountain, when this is the object of vision. Once more ; the propensities and sentiments may be prompted into action or repressed, *indirectly*, by an effort of the will : thus, if the perceptive faculties be employed in conceiving objects naturally adapted to incite the affective faculties, the latter will start into action in the same manner, though with less intensity than if their appropriate objects were externally present ; and, on such occasions, the vivacity of the feeling will be in proportion to the strength of the intellectual conception united to the energy of the propensities and sentiments.

As the propensities and sentiments do not form ideas, and as it is impossible to excite or recall, *directly*, by an act of the will, the

feelings or emotions produced by them, Mr. C. fairly infers that these faculties have not the attributes of perception, conception, memory, and imagination. They possess the attribute of sensation alone; or, when they are active, a sensation or emotion is experienced: hence, sensation is an accompaniment of the action of all the faculties which *feel*, and of the nervous system in general; but sensation itself is *not* a mental faculty.

Mr. Combe is completely successful in evincing the immense advantages which may be derived from the right application of his principles in explaining the sources of pleasure and happiness, in choosing servants and confidential agents, in accounting for the great variety of tastes and dispositions among mankind, in managing the unhappy victims of insanity, and in conducting the all-important business of education.

The perceptive, or knowing, and the reflective faculties, form ideas and discern relations: they are subject to the will, or, rather, they constitute *will* themselves, and they minister to the gratification and government of the other faculties which only *feel*. They may become active from excitement by internal causes, and then the kinds of ideas which they are adapted to form are presented involuntarily to the mind. Again; they may be excited by the presentation of external objects calculated to call them into action; and, moreover, they may be prompted into action by an act of the will. When excited by the presentation of external objects, the objects are *perceived*, and this act is called *perception*; but perception is not a separate *faculty* of the mind; it is merely a mode of action of the faculties that form ideas, and the term implies the lowest degree of intellectual power. Perception is simply an *act* of the perceptive and reflective faculties. When these are powerfully active from internal excitement, whether by the will or from natural activity, ideas are then vividly and rapidly conceived, and the mental *act* of forming them is styled conception; and if this act is performed with a very high degree of vivacity, it is then called imagination. Each of the forementioned faculties performs the act of conception in its own sphere, and temperament or constitution exercises great influence on their activity.

The lymphatic constitution requires external objects to rouse it to vivid action, while the sanguine and nervous glow with spontaneous and constitutional vivacity. Hence, imagination, which results from a high degree of activity, is rarely found with a constitution purely lymphatic, but it becomes exalted in proportion to the approach of the constitution to the nervous. Conception, then, is the

cool and methodical representation to one's self of things absent and as they exist in nature. Imagination is the impassioned representation of the same things, not merely in the forms and arrangements of nature, but in new combinations made by the mind itself. Perception, therefore, is the *first*, conception the *second*, and imagination the *third* degree of activity of the perceptive and reflective faculties.

Memory is not a faculty of the mind: it is solely a mode of action of the faculties which perceive and reflect. The emotions experienced through the propensities and sentiments cannot be recalled by merely willing them to be felt: hence, it is held that these faculties do not possess memory, are incapable of performing the act of remembering. Memory differs from conception, in that it implies a new conception of impressions previously received, attended with the idea of past time and consciousness of their former existence: generally, the act of remembering follows the order of events as they happened.

On the other side, in conception and imagination, new combinations of ideas are formed, not only without regard to the time or order in which the elementary notions had previously existed, but even without any direct reference to their having formerly existed at all. Judgment is the perception of adaptation, of relation, of fitness, or of the connexion between means and an end: it is an act performed exclusively by the reflective faculties; it is the decision of these upon the feelings furnished by the propensities and sentiments, and upon the ideas furnished by the whole intellectual powers. An analytical view of Lord Bacon's character is given by Mr. C. at p. 642, as an example, how poor an endowment, even the most transcendent intellect is, when unaccompanied with upright sentiments.

Mr. Combe accounts for the phenomena of dreaming, by showing that it proceeds from the activity of the organs of some faculties which continue to be awake while those of all the rest are asleep.

This subject is curious and involves topics of high consideration: his philosophy of dreaming is ingenious, clear, and substantial. It is followed by disquisitions on consciousness, attention, association, passion, pleasure and pain, patience and impatience, joy and grief, sympathy, habit, and taste. After these come others on the effects of organic size on the mental manifestations; on the effects of the organs when in different relative proportions or size; on their combinations in activity; with a practical application of the doctrine of the combinations of the mental faculties and their organs. These

disquisitions establish many views well calculated to improve the practical adaptations of philosophy, morals, and legislation. Two essays stand next in the *System*. The first is on the coincidence between the natural talents and dispositions of nations and the development of their brains. This brings under review successively the national characters of the Hindoos, Caribs, New Hollanders, New Zealanders, North American Indians, Brazilian Indians, Negroes, Sandwich Islanders, Swiss, Ancient Egyptians, Ancient Greeks, Scotch Lowlanders, English, Germans, and French: and the characteristic differences delineated in the essay are confirmed by figures demonstrating fundamental distinctions in national heads, both in size and shape. The second is on the importance of including development of brain as an element in statistical inquiries into the manifestations of the animal, moral, and intellectual faculties of man. The value of this essay is greatly enhanced by comparative tables of the statistics of insanity, crime, and instruction.

Mr. Combe concludes the *System* with a truly philosophical examination and refutation of objections to the new mental science, especially those founded on materialism, and the effects of injuries of the brain. His appendix contains four documents,—additional evidence that the brain is the organ of the mind; objections to classifications of the mental faculties; table of Dr. Gall's original names of the faculties; and a list of testimonials in support of a representation addressed, in 1836, to the Secretary for the Colonies, recommending a method for classifying convicts sent to New South Wales, as a punishment for their crimes.

The preceding dense outline of Mr. Combe's *System*, will serve to exhibit the very comprehensive and influential bearings of his doctrines upon the foundations of man's virtue, happiness and power, as he is a responsible agent in this world and an aspirant for an higher inheritance which will be permanent as his immortality. May these doctrines be impartially, deliberately, and fully investigated.

## HORACE ON INSANITY.

BY D. W. NASH, SURGEON.

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“There are more things in heaven and earth, Horatio,  
Than are dreamt of in your philosophy.”

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TRUE, O princely Dane! And there is more philosophy in Horace than the world in general dreams of, and which, if matters progress after their present fashion, will, in all probability, ere long “be dipped in Lethe and forgotten:” for in these utilitarian days, when *cui bono*? is the universal question, and the *dulce* is too often divorced from its long and pleasing union with the *utile*; when, to use the favourite phraseology of the Göethe school, the substantial has usurped the throne of the ideal; when the argent comptant of practical information is more readily received than the promissory notes of the imagination—there is apparently a growing depreciation of the politer branches of education, and a not unnatural, though perhaps, comparatively, an over-estimate of the value of those acquirements which are more directly available in the world we live in.

It has often been stated, of late, in works professedly on education, that the time employed by young persons in the acquisition of the Greek and Latin languages is, in fact, so much time thrown away; for that a knowledge of these languages is not productive of sufficient advantage to them in after life to compensate for the labour and time bestowed on their acquisition, which time and labour could of course have been available for the purpose of acquiring more useful knowledge.

In a former number of the *Analyst*, a quotation from Dr. Shirley Palmer’s *Popular Illustrations of Medicine* was adduced to strengthen the arguments of a writer against the utility of a classical education. “It may even be questioned,” says Dr. Shirley Palmer, in the work before mentioned, “whether the literary acquirements of early age are worth the sacrifice and the risk incurred in their pursuit. Many a weakly stripling has spent the brightest and most joyous years of a precarious existence in irksome drudgery upon the works of Homer and of Virgil, long ere his mind could comprehend the majesty of the Greek, or be smitten with the splen-

dour and elegance of the Roman, poet. And what, after all, has he acquired, that can compensate for the lost opportunity of more fully evolving his physical powers, and fortifying his constitution against the inroads of future disease? A knowledge of which, in riper age, a few month's application, under an enlightened system of instruction, would have given him a far more perfect possession; and in the attainment of which a maturer intelligence would then have afforded the most exquisite gratification."

Of course the weakly stripling would suffer the same martyrdom whether he applied himself to German or Greek, to logarithms or to Latin; the only question is upon the point of what is to be gained by either, in short, the old query of *cui bono*? Now I do not purpose entering into an argument on the value of classical acquirements either to the medical practitioner or to students in general, though, in the course of such an argument, I could enlist on my side many of England's best and wisest; but, after these few preliminary observations, will endeavour to shew that a great deal of both moral and medical philosophy may be acquired from the writings of the lyric bard of Rome.

One of the chief characteristics of a great poet, of whatever country, is an intimate knowledge of human nature. The face of a country may alter in appearance under the influence of increasing civilization, languages and religions may be modified or lost, the manners and customs of a people may gradually change, but human passions and human affections remain unchanging and unchangeable. Ambition, love, hatred, avarice, revenge, are the same in the barbarian as in civilized man, though clothed in a different dress and seen in a different light. In vice and virtue themselves time has made no alteration, though it has changed the fashion of their garb; the same passions produce the same effects in London and in Paris, as in ages gone by they produced in Athens and in Rome; and the picture which Horace drew of the vices and follies of his day requires but little change to render it a faithful representation of the present time. Horace himself held the same opinions, and tells us, in his Epistle to Lollius, that he was in the habit of reading Homer for the sake of the moral philosophy which it contained.

"Trojani belli scriptorem, maxime Lolli,  
Dum tu declamas Romæ, Præneste religi;  
Qui, quid sit pulchrum, quid turpe, quid utile, quid non,  
Plenius ac melius Chrysippo, et Crantore dicit."

What Horace here says of Homer is true of Horace:

“Mutato nomine, de te, fabula narratur”

was his own remark, though with little foresight of the future extent of its application. To prove our position, let us take our old school *Horace*, imprinted in *Ædibus Valpianis*, or the Delphine edition, if preferred, and read the conversation which took place between Damasippus and the poet.\* What says the heading? “Damasippus, Stertini, Stoici verbis, omnes insanire docet.” “Stertinius,” says Lempriere, “was a Stoic philosopher ridiculed by Horace.” This seems more than doubtful: Horace has put his sentiments in the mouth of the Stoic, but by no means does he place him in a ridiculous light; on the contrary, he makes him utter many very philosophical and profound remarks. And, first, he proceeds to tell us the grounds on which he makes the assertion that “all men are mad.” “Nunc accipe,” says he,—

“Nunc accipe quare

Despiciant omnes, æque ac tu, qui tibi nomen  
Insano posuere. Velut sylvis, ubi passim  
Palantes error certo de tramite pellit,  
Ille sinistrorsum, hic dextrorsum abit; unus utrique  
Error, sed variis illudit partibus. Hoc te  
Crede modo insanum; nihilo ut sapientior ille  
Qui te deridet, caudam trahat.”

And who is there that keeps in “certo tramite”—in the right path of reason? Who can say that he is not led away from it like the rest of his fellow cosmopolites? Who is there that has not some favourite pursuit, some prevailing fancy, which leads him to the right or to the left, and causes him to wander in the tangled paths of error—some hobby, whose prancing disposition carries him into the thickets, and too often deposits the unwary rider amid the briars? Again, how true the poet’s remark, “Qui te deridet, caudam trahet!” How few are aware of their own follies! how few can discover their own eccentricities or weaknesses! “γινώσκει σκαυτον” was an excellent moral precept, but its accomplishment is hardly within the power of man; and the old fable carries with it much sound sense, which relates that Jupiter placed the wallet containing the faults of men at their backs; so that each man can discern those of his neighbour, while he remains ignorant of his own.

\* *Satirarum*, lib. ii., iii.

That man will have made no inconsiderable progress towards perfection who

“*Respicere ignoto discet pendentia tergo.*”

But to return to the argument of the Stoic, that “all men are mad.” In order to enter fully into it, we must first inquire, In what does insanity consist? “A lunatic,” says the learned Judge Blackstone, “is one who hath had understanding, but by disease, grief, or other accident, hath lost the use of his reason.” Medical writers of late years, and among them Esquirol, Pinel, and Dr. Prichard, have considered insanity principally as offering itself to our observation under two heads; as insanity with hallucination, and moral insanity, in which no delusion or hallucination of mind can be discovered.

The first kind of insanity occurs in four principal forms, namely, 1st. Mania, where the mental delusion is complete and universal, accompanied by excitement; 2nd. Monomania, or partial insanity, an hallucination confined to a single object; 3rd. Dementia, or accidental obliteration of the reasoning faculties; 4th. Idiotism, in which this obliteration is congenital.

The second kind of mental alienation has been distinguished, by Spurzheim, under the name of irresistibility; by Pinel, as mania without delirium or hallucination; and by our learned countryman, Dr. Prichard, as moral insanity.

Dr. Prichard thus defines this affection:—“Moral insanity, or madness, consists in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, and moral dispositions, without any notable lesion of the intellect or knowing and reasoning faculties, particularly without any maniacal hallucination.”

If this perversion of the feelings and habits be slight in degree and harmless in character, the individual thus affected is merely considered odd or eccentric, and passes muster with the world in general: but if developed more strongly, it becomes the source of one of the most terrible species of mental alienation.

If the above definition be correct, who is there that can be said to be exempt from the taint of moral insanity? who is there in whom some of the natural propensities, to use the words of Spurzheim, do not occasionally become so violent as to be irresistible and uncontrollable?

“*Ira brevis furor est,*” and so are many other evil passions. The poor man whose breast is gnawed with a feeling of envious dislike



towards him who is richer and apparently happier than himself—the rich and powerful who looks down with contemptuous loathing on his poor and miserable fellow-man, equally with himself the work of God—the gambler who sacrifices health, happiness, honour, and peace of mind, both his own and that of others, in his destructive pursuit—the miser who hoards up useless treasure, and denies to himself and to his offspring the merest necessities of life—in these and a hundred other cases the same passions are at work which, if developed in a higher degree, would come under the denomination of insanity.

But let us turn to our poet, and see what he has to say on this point:—

“Audire, atque togam jubeo componere, quisquis,  
Ambitione malâ aut argenti pallet amore  
Quisquis luxuriâ, tristive superstitione  
Aut alio mentis morbo calet.”

Ambition, avarice, luxury, and superstition, may well be placed foremost among the diseases of the mind; productive of various shades of mental alienation, as injurious to society, in their consequences, as many other more generally recognized varieties of insanity. Of these disorders Horace seems to consider avarice as the most obstinate and most difficult of cure:—

“Danda est hellebori multo pars maxima avaris  
Nescio an Anticyram ratio illis destinet omnem.”

Avarice is, indeed, the vice at which Horace most frequently levels his satire, but not at this alone. He asks,

“Quisnam igitur sanus? Qui non stultus? quid avarus?  
Stultus et insanus.  
\* \* \* ambitiosus et audax  
Naviget Anticyram.”

The numerous gradations of insanity are extremely difficult of distinction, especially in the slighter varieties. It is no easy matter to define the boundary between that state of mind which is commonly called eccentricity, and what would legally come under the denomination of unsoundness of mind. An individual may acquire habits at variance with those of the world in general, and his conduct may be influenced by a mental impression, or some mental faculty which in him is more than ordinarily energetic; and yet he may be capable of reasoning correctly on correct premises, and may

be perfectly competent to conduct his affairs without injury to himself or to society. Horace says,

“Si quis emat citharas, emtas comportet in unum  
Nec studio citharæ, nec musæ deditus ulli;  
Si scalpra et formas non sutor, nautica vela  
Aversus mercaturis; delirus et amens  
Undique dicatur merito.”

Here the words “*delirus et amens*” must not be literally taken, as the mental disorder, if confined to the description given, would not amount to more than eccentricity. But the moment the mental affection begins to deprive the individual of the power of proper self-direction, he, of course, becomes obnoxious to society and dangerous to himself; and at this period the law steps in, and charges itself with the duty of protection, both towards the individual and towards society at large. Horace tells us that when there was sufficient evidence of aberration of intellect to render the individual incapable of taking care of his property, he was placed under the guardianship of the law, and his estates committed to the care of his relatives. He here draws a distinction between that kind of mental disease which constitutes real insanity, and that which results from the development of uncontrolled evil passions and propensities, and between these and the state of eccentricity before alluded to. He now puts a case of real monomania, in which a delusion or false mental impression exists, not connected either by the evidence of the senses or by the exercise of the reasoning faculties, by the powers of comparison and judgment.

“Si quis lectica nitidam gestare amet agnam  
Huic vestem, ut natæ, paret, ancillas paret, aurum  
Pupam aut pupillam appellet, fortique marito  
Destinet uxorem; interdicto huic omne adimat jus  
Prætor, et ad sanos abeat tutela propinquos.”

A person in such a state of mind as here represented, would, without doubt, be considered a fit inmate for a lunatic asylum. His insanity would be at once recognised, and his social rights would with justice be suspended during the period of such an aberration of intellect; but what will be the answer to the following question, in which the sacrifice of Iphigenia by her father, Agamemnon, is alluded to?

“Quid si quis natam pro mutâ devovet agnâ  
Integer est animi?”

Under what title should such a deed be arraigned? Is it to be attributed to a kind of religious mania—to superstition become morbid in its excess—or rather, in the case referred to, the desire to return in safety to his country being more powerful than the natural affection of the father for his child, the latter was sacrificed to a superstitious delusion? Selfishness is a very prominent feature in the character of Agamemnon, throughout his whole history. There was here, certainly, “a morbid perversion of the natural feelings without any maniacal hallucination;” but there was a motive for the act, which constitutes the difference between crime and moral insanity; and this motive was not based on a false mental impression, but on a sound train of reasoning on sound premises. These premises we know to have been false; but to the Grecian monarch they were correct, because in that period of universal ignorance they were universally received and accredited. In the present day, in a civilized country, a man who sacrificed his daughter to avert the anticipated wrath of Heaven, would justly be deemed insane, as he would be acting contrary to the dictates of reason, influenced by a false mental impression. Agamemnon gives a reason for his act, and directly denies the charge of insanity. He says—

“Verum ego ut hærentes adverso littore naves  
Eriperem, prudens placavi sanguine Divos.”  
“Nempe tuo furiosse.” “Meo, sed non furiosus.”

Crime and insanity are nearly allied; ignorance treads on the heels of both. Horace says, with truth,

“ubi prava  
Stultitia, hic summa est insania. Qui sceleratus  
Et furiosus erit.”

This appears to be the plain truth. Unchecked immoral habits and unbridled passions constitute a kind of madness, and too often degenerate into real insanity. It remains doubtful whether such causes should be allowed to shield their victims from the penalties due for crime committed under their influence.

The question of the positive insanity of persons by whom crimes of the most dreadful character have been committed, and yet in whom no mental hallucination exists, has been much argued by medical jurists, and in many cases it has been urged that acts of violence committed under the influence of that peculiar state of mind, termed moral insanity, do not come under the denomination of crime, and, therefore, are not punishable by law.

It may be said, in reply, that when there is no mental hallucination there can be no insanity, since insanity consists in the existence of one or more false mental impressions, retained contrary to the evidence of the senses and of the reasoning powers, or in consequence of the diseased state of the former or the enfeebled or deficient state of the latter. The want of self-government and the strength of the passions can with difficulty be considered as disease. In many cases which have been brought forward as of moral insanity, there has been evident delusion of mind; as in those persons who have been impressed with an irresistible desire to commit murder. In others, on the contrary, a long indulgence of the worst passions of human nature, the total absence of self-control, of moral and religious constraint, impatience of contradiction and reproof, and utter selfishness, have led to a similar state of blood-thirsty and inhuman ferocity. This was the state of mind of Nero, of Tiberius, of Nadir Shah, and of many other scourges of the human race, who in their turn "have shut the gates of mercy on mankind;" and it is the state of many who consummate a long life of wickedness by shedding the blood of a fellow creature. Though the excessive development of evil passions, and the perversion of the natural affections, are well characterized under the term moral insanity, it becomes a most difficult matter to define the boundary between a crime to be punished and a disease to be pitied and relieved. Well-marked hallucination, of course, exempts its unfortunate subject from the penalties exacted from the criminal; but, in cases such as those just referred to, the responsibility of the medical witness becomes very serious.

Horace alludes to a case in which some doubt appears to exist in his mind as to whether the crime was committed under the influence of insanity or otherwise. The case is that of the murder of Clytemnestra by her son Orestes, and the facts are these. Agamemnon, king of Mycenæ and Argos, on returning from the siege of Troy, was barbarously murdered by his wife (Clytemnestra) and her paramour (Ægisthus). Orestes, the son of Agamemnon and Clytemnestra, arrived at manhood, revenges his father's death by the murder of Ægisthus and his mother. He afterwards became insane. Speaking of this murder, Horace asks,

"Au tu reris cum occisâ insanisse parente  
Ac non antè malis dementem actum Furlis, quàm  
In matris jugulo ferrum tepefecit acutum?"

This, however, was evidently a case of premeditated murder, for

which there is clearly a real motive, to revenge the murder of his father. Orestes was suffering neither under delusion nor false impressions, nor was there any perversion of the natural feelings and affections (for such perversion must be without just cause); he reasoned rightly on real grounds, the power of doing which constitutes, in general terms, soundness of mind. His insanity commenced after the commission of the deed, and took its origin in remorse and horror at the magnitude of his crime. It was, however, only of temporary duration, and we find that he had entirely recovered at no long period afterwards.

Horace was fully aware of the great difficulty of distinguishing between these two species of insanity; for crime is, as has been before observed, the effect of an aberration of reason; and the man who commits a murder while under the influence of evil passions is not really in a sound state of mind. Struck with this view of the case, Horace asks—

“*au commotæ crimine mentis,  
Absolves hominem, et sceleris damnabis eundem,  
Ex more imponens cognata vocabula rebus?*”

It has been frequently remarked, that no knowledge is so difficult of acquirement as self-knowledge; and yet none is of more importance to man, whether as regards his happiness in this world or his prospects in that to come. It would, indeed, be well if we were to commence the task of self-examination, and to put to our own breasts the question which the poet puts to the stoic philosopher:—

“*Quâ me stultitia, quoniam non est genus unum  
Insanire putas? Ego nam videor mihi sanus:*”

and fortunate if the result of the examination induces the confession, however humiliating, proceeding from a conviction of our own innate depravity:—

“*Stultum me fateor (liceat concedere veris)  
Atque etiam insanum.*”

Thus much and more may be elicited from a single satire of Horace. How much of philosophy, of knowledge of mankind, of shrewd observation, and, in many cases, of excellent moral precept, may we not derive from the same source! This, I think, is at least an argument in favour of a classical education, and a proof that the

time spent in the acquirement of the dead languages need not be considered as entirely thrown away.

But it is time to conclude, lest my readers exclaim, as our favourite poet to Damasippus :—

“O major, tandem parcas, insane, minori !”

*Cheltenham, May, 1837.*

[We consider the utility or otherwise of classical pursuits to be placed on its right footing in Dr. Caldwell's *Thoughts on the Study of the Greek and Latin Languages*, to which excellent treatise we refer our readers.—EDS.]

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## THE IMPORTANCE OF CONSULTING THE BIAS OF YOUTH IN THE CHOICE OF A BUSINESS OR PROFESSION,

EXEMPLIFIED IN THE CASE OF LINNEUS.

[FROM A MS. MEMOIR].

AFTER spending three years more under the private tuition of Gabriel Hök, who ultimately married his eldest sister, Linneus was advanced to a higher grade in the school, and was, in consequence, privileged with more frequent opportunities than he had before enjoyed of indulging and cherishing his attachment to Botany—opportunities which he eagerly embraced, almost, indeed, to the utter neglect of the important branches of learning which he had been placed there to acquire. His highest pleasure was to escape from the thralldom of the school, in order to ramble, unfettered, in the country ; not to avoid his task, or to indulge that listlessness of disposition which so generally influences truants in their stealthy rambles, but to hold secret and delightful converse with the fairies of the meadows.

On his removal, at seventeen years of age, to the gymnasium, or high school, he manifested, more decidedly than ever, his unconquerable aversion to the studies necessary to prepare him for the proper discharge of the sacred office. Rhetoric, Metaphysics, Ethics,

and Theology, had no charms for him ; nor did Hebrew and Greek, languages in which the great treasures of divinity were deposited, find in him an admirer. He devoted himself almost exclusively to the Mathematics and Physical Sciences ; to aid his progress in the latter of which, he formed a small collection of books, consisting principally of Floras, and some of these, though then beyond his comprehension, he even committed to memory. Indeed, he was generally known, amongst both tutors and scholars, by what was doubtless considered the contemptuous appellation of " the little botanist."

The result of so manifest a dislike to theological studies, and of so determined an adherence to the natural sciences, in a community totally unable to appreciate their value and importance, was that, when his father came to Wexiö in the expectation of finding him, as he was then in his nineteenth year, almost prepared to enter on the great duties of the Christian ministry, he had to endure the bitter disappointment and mortification of learning, from the prejudiced and narrow-minded tutors, that his son had neither taste nor talent for classical and biblical literature, that to incur further expense in his education would be the height of folly, and that the most proper and prudent plan he could adopt would be to bind him apprentice to a shoe-maker or tailor !

Thus was he whom, shortly after, Sweden was proud to call her son, and whom kings delighted to honour, on the point of being sacrificed to ignorance and bigotry, and probably of being lost for ever, as a man of science, to himself and to mankind, in the unintellectual details of an ignoble mechanical employment. It is not unfrequently the case that attempts are thus made to thwart the obvious bias of youth, in order to promote some darling project or to serve some contemptible policy. With ordinary minds, easily influenced by external circumstances, this, it is true, may be a task of no difficult accomplishment ; but in such as bear the genuine impress of genius, the impulse communicated by some early determination of their powers and predilection generally continues, through life, unchanged and undiminished. In the instance of Linneus, the whole course of his education hitherto had been directed to prepare him for an office for which, however dignified, he had no inclination whatever, and to turn the current of a taste which, formed almost at his birth, had grown deeper and stronger with his growth, and which neither severity of treatment, the insolence of contempt, nor the stern obligations of filial duty, could weaken or destroy. Yet it is only candid to admit that, although the result bears out this

sentiment in the case of Linneus, youthful propensities are often too capricious or unreasonable to justify parents in yielding to inclinations not less unequivocally expressed than in the instance in question. Nor should it be concealed that Botany, besides holding out no immediate or remote hopes of subsistence or honour, was not by any means regarded, at the period and place alluded to, even among the learned, with that respect, as a science, which the labours and fame of Linneus and of other modern cultivators have secured for it.

Honoured, however, be the name of the man who rescued talents so promising from the degradation which the father of Linneus was thus persuaded to think advisable and necessary. The venerable minister was grieved and vexed that so much time should have been spent, as he thought, to so unprofitable a purpose, and that his income, limited as it was, should have been burdened with expenses which had proved so useless and unavailing. Whilst under the influence of these feelings he had occasion to consult Rothman, an eminent physician, and professor of medicine in the college of Wexiö, respecting a complaint with which he had for some time been troubled. After describing his symptoms, he could not refrain from telling the professor, in the fulness of his heart, the sad and painful disappointment which he had recently suffered, and which threatened to dispel, in a moment, the bright visions of hope that had hitherto promised to cheer the evening of his days. Rothman was much interested by the recital, and told his patient that he could not only effect his restoration to health of body, but that he could also, in that instance at least, "minister to a mind diseased." He said that if the sciences to which the youth had devoted himself disqualified him for theological studies, his diligence and taste held out an assurance that in medicine he would become useful and eminent, and that he would ultimately distinguish himself in the wide, but almost untrodden, field of Natural History. So confident was Rothman of the correctness of these views and expectations that, to remove all scruple and uneasiness from the mind of his father, he generously offered to take the young outcast into his own house and under his own especial charge, during the remainder of his term at the gymnasium. This promise he punctually performed, and, in addition, gave him private lessons in Physiology, and explained to him the principles of the Tournefortian System of Botany, which was then universally and, considering the state of science, deservedly popular.

Thus, through the penetration and benevolence of Dr. Rothman, the prospect of a new career was opened before Linneus, and he



was not slow to avail himself, to the utmost, of the high advantages it afforded. He passed his examination in Physic in a manner highly satisfactory to his tutor and creditable to himself; and in Botany, which he had before studied without reference to system, he laboured so incessantly that he was soon enabled to assign every plant he gathered its proper place in the classification of the great Tournefort—a classification which, though highly ingenious, Linneus quickly discovered to be defective.

It is probable that, notwithstanding the bright and flattering anticipations of Rothman, and the pleasing change which the young naturalist, in consequence of his liberality, enjoyed, his parents did not view the hopeless overthrow of their favourite scheme with any high degree of complacency and satisfaction. In the church, comfort, respectability, and a competency, were morally certain; while in the unbeaten path which he seemed perversely determined to pursue, honour and emolument appeared to them as empty sounds, or as phantoms of the imagination that would inevitably allure him to poverty and ruin. So little, even yet, were they acquainted with the rich intellectual endowments of their son, and so little able to enter into the lofty projects and to conceive the buoyancy of hope of a great and aspiring mind, which often, indeed, makes its way to riches and to fame where dull and easy mediocrity would starve in penury and neglect.

L. L.

[Of course, every one professing himself a naturalist is familiar with the history of the "immortal Swede;" but as it may prove interesting and instructive to others, especially as treated by our intelligent correspondent, we have much pleasure in publishing it in the form above presented.—Eds.]

## ON THE CONNECTION BETWEEN PHRENOLOGY AND PHYSIOGNOMY.

By J. L. LEVISON.

(Concluded from p. 273, vol. v.)

THE practical inference deduced from my preliminary remarks in the eighteenth number of the *Analyst* was briefly this, that the head is more important to individualize a person than a mere *fac-simile* of the features, if the cranial developments are unheeded. And as the skull receives its form from the brain contained within, it follows that a knowledge of the functions of the brain (Phrenology) must furnish more accurate and certain means to ascertain particular dispositions, tempers, and various kinds of intellectual capacity, than could be obtained by any of the vague rules of Physiognomy.

I shall, therefore, make a more particular comparison between these two modes of attempting to know something definite of human character ; and I think every candid person will admit that, for this purpose, there is much greater accuracy in the system of Gall and Spurzheim than there is in those of Theophrastus and Lavater. I ask, what rules can be suggested by the most learned physiognomist to ascertain when there exists a natural *genius* for Music, or Painting, or Poetry, or Mathematics, or History, &c.? What rules could he furnish to denote any relative degree in which such mental qualifications are experienced in the persons with whom we associate? It will be shewn, in the sequel of this paper, that mere length and breadth of the face, or the size and shape of the nose, chin, and so forth, are imperfect indicators of character, unless in extreme cases. On the other hand, the phrenologist can ascertain cases even of mediocrity, without looking at the nose or chin, &c., by the mere inspection of the head. I venture to add that even in such extraordinary instances of early genius as was manifested by Dr. Crotch, the mere inspection of his features would not have indicated his musical capacity : and if his form of face should have been adopted by the physiognomist as typical of great musical capacity, then the student would have been in a dilemma on examining the features of composers in general. He would find, for example, that there are scarcely two of the composers alike :—what a difference in the faces of a Handel, a Mozart, a Haydn, and a Neukomm ! If, however, the tyro in Physiognomy, instead of applying his fancied

rules to point out composers and what kind of composition they would excel in, should turn his attention to those who warbled the sweetest strains of the great masters of harmony—such as Braham, Catalani, Sontag, or Malibran—he would find himself with equal difficulties, as these singers, and many others, have not features of similar forms ; but if he looked at their *brains* he would find large organs of Melody, Time, &c., in all of them. That the reader may be satisfied that I do not unfairly depreciate the merits of Physiognomy, or that I ask their acquiescence to my views without convincing their judgment, I submit the following phrenological experiment, made by the writer of this article, on board the Hull and Gainsborough steamer, in the summer of 1827. I had seated myself in the stern of the vessel, next to a Danish merchant, who told me he was from Copenhagen, and that he should shortly return there. As I knew that in that city a phrenological journal was published, I asked some particulars about it, and inquired what was the state of Phrenology on the continent, as the merchant had some little knowledge of the science through the writings of Drs. Otto and Hoppe ; but I found him a kind of negative convert. He thought there was “something in it, but it was a mere theory, which would never be available for useful purposes.” I controverted his statement, and in particular urged its importance in education. The merchant required some proof, and said, “Are you acquainted with any of the passengers?” Receiving an answer in the negative, he continued, “Well, then, what do you think of that person?” The individual pointed at stood leaning against the entrance of the cabin, and it soon appeared that he had noticed the fact of his being the subject of our conversation. He approached us and very frankly told us so. I was obliged to explain the circumstance by mentioning part of the previous conversation, and that I had been challenged by my companion to say something of his phrenological development. The stranger smiled, very obligingly took off his hat, and said “Well, what do you think of me?” “Why, that you are very fond of Music, and are most likely a good musician.”\* “That is excellent,” said the stranger ; “could you venture to say that I am a composer, and what kind of Music I have a preference for?” I answered that his organization seemed to me so

\* All the intellectual faculties were large, but Melody, Time, Order, Number, Constructiveness, Ideality, Veneration, Marvellousness, Hope, Self-esteem, and Love of Approbation, were very large, and also the domestic feelings ; hence the phrenologist will perceive it was not guessing.

good that I should not be surprised to be informed that he was actually a composer, and that in such case he would have a preference for sacred music, and probably might also indulge in amatory strains.\* He clapped his hands with evident satisfaction at my remarks, and with great candour said, "I am sure you have never seen me before, nor am I known to any one on board; therefore your accurate knowledge of my character and pursuits convinces me that Phrenology is a very valuable science: I am a composer of sacred music!" He then went into the cabin and unlocked a case, from whence he took a quarto volume of sacred compositions for the organ, of which he was the author. In the satisfaction of the moment I omitted to inquire his name, but subsequently ascertained that it was Mr. Greenwood, of Leeds, and that he exercised the triple occupation of organ-builder, organist, and composer of sacred music. My foreign companion seemed also much gratified, as he confessed he "could not have given any particulars of Mr. Greenwood's mental qualifications by the most minute and accurate examination of the face, although he professed to be a physiognomist.

Let the most talented advocate of physiognomical science contemplate the busts or portraits of Raphael, Rubens, or Salvator Rosa; would he be enabled to explain their respective excellencies?—that Raphael was most powerful in imitating forms?—that Rubens had more poetic conception, and an exquisite perception of the harmony of colours?—and that Salvator Rosa luxuriated in the sublime and the horrible? I think he could not, so as to explain the *data* he judged from, by which, on examining other artists, he could enable a disciple to say which branch of the art any embryo artist would be most predisposed to select. Now I claim the palm for Phrenology because it would enable a professor to make such discrimination. He could ascertain the particular bias, and also how far any one might hope to vie or approximate to the great masters of the art. Or let the Lavaterian put his rules to this test; let him decide on examining a number of students just entered at Cambridge (of course, all strangers to him), and say whether they will or will not take honours, and, if so, who amongst them would be most likely to be the senior wrangler, or second, or third, &c. Should he form his opinions from the features of a Newton, he would probably find the faces different in every one of the individuals on whom the experiment was tried. But this would be no kind of obstacle to a phrenologist; whatever the difference in the general forms of their

\* He had large organs of Amativeness and Adhesiveness.

heads, he would find they had large perceptive faculties (particularly Form, Size, and Number) and the reasoning faculties ample. When the late excellent Dr. Spurzheim lectured in Cambridge, he pointed out the very large organ of Number in Professor Airy, without knowing who he was.

All that can be said for Physiognomy, in reference to the intelligence of persons, is, that it can recognise a person of general good talent, without explaining the details, or his particular excellence ; and it will also point out an idiotic person, but without specifying whether he is wholly or only partially so. But Phrenology can accomplish these distinctions in both cases.

Physiognomy is of some value in extreme cases of the animal propensities, though even then it is rather something almost *instinctively* recognised than actually comprehended. But its *data* are so vague and undefined that it is an imperfect guide, often misleading the judgment. This is easily accounted for, as the modifications of human character depend on many and dissimilar causes, yet in every instance the effects are to individualize each person. It must, therefore, be a very difficult task to furnish a theory to explain such differences as the modifications in the *outward and visible signs*, which must be as numerous as they are evanescent. If we examine national expression, for example, we find a certain general form of feature, but modified by such imperceptible shades that still there are not two faces exactly alike. What produces these results?—the mental faculties, imparting, by their almost innumerable combinations, some slight difference to the muscles of the face in general, and of the mouth, nostrils, eye-lid, &c., in particular. It is the vagueness which such fleeting impressions produce that increases the great difficulties of comprehending the commonplace in human character. We may immediately determine strong-marked cases, such as the confirmed sensualist, the savage, the revengeful, the stubborn, the proud, the vain, the sly and cunning, the ingenuous, the timid, the brave, &c., but what rules have we to discriminate, with any accuracy, persons who are very revengeful but who can conceal their feelings? or those who, with the most sensual and animal pursuits, assume the character for being religious and moral agents? In short, how are we to indicate cases when there are the greatest anomalies in the sum total of the character? Hence the following may be taken as a strictly legitimate estimate of the actual value of Physiognomy :—1st. That, as far as the intellectual qualifications of any individual are concerned, only a general notion can be obtained ; 2nd. That we can only trust to its rules in extreme cases

of the selfish propensities ; 3rd. It serves by negative evidence to mark the moral sentiments, unless in extreme cases of Benevolence, &c.\*

Before proceeding further in the evidence I shall subsequently submit in confirmation of these statements, I may remark that I use the term *Physiognomy* in its popular and generally received sense, and not in its literal meaning,† but as indicating certain general observations on the form of the forehead, nose, mouth, chin, &c. Now, the hard bony outline of the features are modified by the different action imparted to the muscles that give to the face its varied expression ; and the instruments which set the muscles into their simple and complex action, are the nerves of the face (those of the eyes, mouth, &c.), which also receive their impulse by the mind acting through the organs of the brain.

The child at its birth possesses the mental faculties which will one day give to the character of the man his individuality. These faculties are not called into simultaneous action, but are developed at the periods when they become important ; and in harmony with this arrangement are the changes which occur to the countenance. What a difference in the expression of the child ! how rounded and smooth are the muscles ! how these same features undergo an alteration in adolescence ! and how much more so in manhood ! At this period, there is an angularity, a sharpness, modified by the amount of anxiety or passion which have influenced the metamorphosis. But all such changes are owing to the cerebral organs acting directly on the muscles of the face, which, like obedient servants, merely take their expression from the mental faculties, and that with rapid punctuality, when they are called upon.

Suppose we offer an illustration of these statements ; let it be the organ of *Secretiveness*. Every one of the mental faculties gives some specific action to the muscles of the face generally, but to one or more in particular. Thus it (*Secretiveness*) acts very much on the muscles which depress the eye-lids, giving the eye a half-concealed appearance ; whilst another muscle pulls the eye-ball rather on one side, and, in the language of Burns, gives the power to

“ Keek through ev’ry other man  
Wi’ sharpen’d, slee, inspection.”

\* Those who have read the celebrated *Characters* of Theophrastus, will recognise them as mere descriptions of extreme cases.

† *Study of Nature.*

And thus, if this one propensity be in extreme in the character, we should have the sly-looking person. On the other hand, suppose the organization to be the same, but that education may have prevented its abused activity, there would be some modification produced in the face by this circumstance. Again; if trained with a view of concealing the real opinions of an individual, he would use this same faculty to simulate some very different character to his own. Such a person could

“ Smile and smile and be a villain.”

Now, whatever the natural character, the features would be, at birth, of a particular form; education would, by calling into action particular faculties, have a tendency, by means of the muscles of the face, to alter and modify the form of every feature. But whether or not any great alteration is produced in the form of the face, there would be a considerable difference in the expression; hence it would be more correct to speak of Pathognomy (expression) instead of Physiognomy.

If one feeling can impart a particular expression, so would powerful *Destructiveness* give a savage expression when it was excited, and a very large *Cautiousness* an expression of great timidity, or even terror, if called into strong action. It is by such means that faces are stamped with a morose or a timid expression: the repetition of the feeling, with the corresponding repetition of particular arrangement of the muscles of the mouth, &c., will in time produce a fixedness of form, an index of the strong passions which have been most powerfully experienced.

I mention these facts to point out, 1st. That it is quite possible to indicate any strong mental power, because it imparts a particular arrangement to the facial muscles; 2nd. That in cases of persons of nearly similar cerebral organization at their birth, and very much alike in their faces, if they were placed in different circumstances, there would be in time a marked difference in their faces or in their expression; 3rd. That such results are the effects of the particular arrangement of the facial muscles, which is produced by the transmitted action of one or more of the intellectual, moral, or animal faculties, and the frequency or otherwise of these changes ultimately gives a particular expression; 4th. That when the mental faculties are in mediocrity, and the temperament very active, the rapid and almost magical changes which are imparted to the facial muscles are too evanescent to leave any permanent impressions;

hence the difficulty of having any positive physiognomical knowledge of such characters.

The accuracy of these statements may be verified in the following manner :—by observing the features under the excitement of strong passions—such as fear, anger, pride, firmness, &c. In these highly-excited states of the primitive feelings of Cautiousness, Destructiveness, Self-esteem, &c., the complex muscles of the mouth indicate marked differences in their arrangement and combinations. This is confirmed by the fact, that when individuals have their casts taken in plaster, whatever states of mind they have experienced will be imparted to the bust. In my own museum, I have children's casts smiling with Love-of-approbation, frowning because scolded, affected almost to the very act of crying, and with closely compressed lips, strongly expressive of great firmness and a determination not to cry, &c.

We must, therefore, judge of the relative importance of Phrenology and Physiognomy by their respective practical merits. It is possible by the former to specify particular intellectual powers, and, in an insane establishment, to point out persons partially affected, as in cases of *monomania*, and, in the prison, to form an accurate estimate of the degree of criminality of each offender.\* There is, however, one physiognomical observation I have made, which seems to be almost a *rule absolute* ; viz.—that persons guilty of great crimes—say murder, or murder and robbery—are generally very ugly ; and in my own collection there are many so much alike, and their habits and crimes so similar, that a casual observer would say, there was a great family likeness among them. But this sameness of expression is quite corroborative of the opinions before submitted. These criminals having similarly formed heads—the base of the brain and back part of the head (behind the *meatus auditorius externus*) being in the greater proportion, which gave them a bias to animal and selfish gratifications, and which they cultivated by associating with criminal minds, and by not having any appeals made to their higher sentiments : hence, from the constancy of particular actions transmitted to the muscles of the face, we have ample means of accounting for their *countenances being very similar*. I select the following illustrative examples :—

Heffell and Kipple were executed at Horsemonger-lane, for the

\* The first experiment instituted by the writer, was when Sir W. C. Ellis was Medical Resident at the Pauper Lunatic Asylum at Wakefield; and the second was made by my late friend, Dr. Spurzheim, in the Hull gaol.



murder of Mrs. Richards, of Clapham. They are reported to have been very much hardened and reckless, and perfectly indifferent to their fate. It is said that they shewed the most perfect contempt and insolence to their minister, who endeavoured to make them sensible of their depraved condition. They had been for some time companions in crime—colleagues in a career of vice and intemperance. Their features are somewhat different, but their heads are very similar, and look almost as if they had been formed in one mould. Yet, from their having exercised their animal propensities, they have a very similar expression. The intellectual faculties of both are only moderate (small anterior lobes), but Amativeness, Destructiveness, Secretiveness, Acquisitiveness, Firmness, and Self-esteem, are all very large, when compared to the moral sentiments. Kipple's features have rather more of refinement than Heffell's, owing perhaps to his Ideality and Secretiveness being rather better developed than in his associate. But the faculties which must have been most active, and most exercised, being so much alike, may account for the stupid daring so apparent in their casts.

Some time since I visited the Wakefield House of Correction. The appearance of the female prisoners was in general very ungainly, having broad and low heads, strongly indicating their depraved and criminal habits. One of them told me, without the slightest appearance of shame, that she had been in a prison sixteen times! There was one young woman, however, amidst these debased persons, who was very handsome, and seemed to have a good cerebral organization. She had been committed for pawning stolen goods, and was very near being a mother, although not more than seventeen years old. On examining her head I found a deep depression over the organ of Conscientiousness, which she said was occasioned by a fall, at which time she lost some quantity of the brain; added to this she had been neglected in her moral education (being an orphan), but could read and write. She should have been placed in an insane establishment, and treated as one having a *diseased* brain, rather than abandoned to the society of a number of women naturally depraved. In cases of this kind, the importance of Gall's philosophy of mind is obvious, as it would enable the magistrate to exercise a discretionary power, and to commit those whom the scientific practitioner must decide as cases of disease, to the care of a physician, rather than to the goaler.

It has often appeared to me, that painting and sculpture could be turned to moral advantage, in exhibiting the features of persons under the strongest excitement. Of course, if the moral sentiments,

we should have examples of the sublime in sentiment—if the animal propensities, the best types to denote each particular passion as it fixes its mark on the features. Would any argument be so powerful an advocate for temperance, as the busts of the sensualist, the glutton, and the inebriate? The appeal of the Romans and Spartans to their children \* would be less powerful checks to arrest the progress of the inebriate, than a series of casts taken from persons in the different stages of intoxication, particularly the *idiotic* stage of complete inebriation. These casts would be good studies for the physiognomist. He would find that there might be features very well formed, or extremely plain, but with a similar expression, because the brain ceasing to stimulate the features, they would have all the appearance of fatuity.

Before bringing these miscellaneous observations to a close, I submit the following practical truths. 1st., That most criminals have broad noses, flattened out at the extremity (the *alæ quæ nasi* extended); the mouth large, the lips thin, and in nearly straight lines, without any undulation; the chin broad and deep; and the heads, in all extreme cases, broad from ear to ear, with defective moral sentiments, and very moderate intelligence.

2nd. Measuring the face of a great many good heads similarly to those of the criminals, that is, from the roots of the nose, just below Individuality (*os nasi*), to the curve of the chin, we could not find any thing like a positive difference, and very often the forms of the nose also agreed; the only positive difference being in the mouth, and this is by no means surprising, when we consider the number of muscles which produce its various motions; and as these motions are different in emotions of the sentiments and in the animal passions, the results of their constant actions impart forms to this interesting organ (the mouth) which are the least fallacious of any of the physiognomical signs. I recollect a young man who was nearly idiotic, the son of a learned divine, whose features were so like those of his father that they might be considered a fac-simile, with the exception of the mouth, which had a very different expression.

Again, we often see persons with faultless faces, who have as much expression as dolls carved from wood. In such cases, the mouth will tell something, as the muscles have been moved as me-

\* I allude to the practice of the Romans making their slaves, and the Spartans their helots, beastly intoxicated, to disgust their children with the vice of inebriation.

chanically as the works of an automaton. Persons of this kind have small brains, and their temperament is sluggish (lymphatic) ; hence their senseless faces and want of expression.

On the whole, therefore, I do not deny that Physiognomy may be used as an auxiliary to Phrenology—as an “index” to mark when there has been a highly excited state of various feelings ; but to read and comprehend them would require the philosophy of Gall, which furnishes the only true key to human nature.

It is generally asserted by the opponents of Phrenology, that when its professors point out any particular *trait* of character, they judge by the form of the features, rather than by the head : and they affect to laugh at our “conceits,” as they are pleased to term them, when we say that we should not derive any definite notions of the modification of talent, &c., if the head was concealed, but that we can do so if the face is covered. And when we offer in opposition to their mere assertions, to abide by our statements, and prove our knowledge of characters by a practical experiment on strangers, they are so disingenuous as to call it “good guessing.” Yet facts demonstrate that a phrenologist who is well acquainted with the *elements* of the science, will not fail in estimating the natural tendencies of even commonplace persons, whilst the physiognomist can scarcely determine on any thing more than extremes in character,—circumstances that at once decide which of the two sciences will be most important in a psychological point of view, and in promoting the happiness and welfare of mankind.

*Doncaster, March 18, 1837.*

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## CORRESPONDENCE.

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TO THE EDITORS OF “THE ANALYST.”

GENTLEMEN,

I FEEL happy in having obtained the permission of two ladies to enclose for the pages of the *Analyst* lists of the rarer indigenous plants collected by themselves in their respective vicinities. The first catalogue, which has reference principally to the neighbour-

hood of Moseley, forms a valuable addition to that of the Birmingham plants given by a gentleman in a former number, a few of which have been repeated when it was desirable to furnish other habitats. I have sent the lists as they were received, with the exception of my having added a little to the first. And as I have had the gratification of inspecting, either in the living state or in Miss Beilby's herbarium, nearly every species comprehended in the first catalogue, with the exception of the *Carices*, I can bear testimony to its correctness; and from Miss Jackson's extensive and minute acquaintance with our indigenous flora, implicit confidence may be placed in the accuracy of the list from Lichfield. It may be well to premise, that, in the first list, the names are from Lindley, in the second from Smith.

Yours, respectfully,  
E. W. BENSON.

#### CATALOGUE OF RARE PLANTS FOUND IN THE NEIGHBOURHOOD OF BIRMINGHAM.

##### CLASS I., VASCULARES.—SUB-CLASS I., DICOTYLEDONES.

RANUNCULACEÆ.—*Thalictrum flavum*, meadows near the Rea.

FUMARIACEÆ.—*Fumaria capreolata*, Sandy lanes.

BRASSICACEÆ.—*Coronopus Ruellii*, lanes near Yardley.

VIOLACEÆ.—*Viola palustris*, bog on Moseley Common.

DROSERACEÆ.—*Drosera rotundifolia*, bogs on Moseley Common.

HYPERICACEÆ.—*Hypericum pulchrum*, Green Lanes, Yardley; *H. elodes*, in a drained mill-pool on Moseley Common.

CARYOPHYLLACEÆ.—*Dianthus deltoides*, lanes near Moseley, but rare; *Silene inflata*, road-side, Handsworth; *Lychnis vespertina*, lane from Sparkbrook to Golden Hillock; *Arenaria tenuifolia*, Gravelly fields, Yardley; *Stellaria nemorum*, field in Hob-lane, Yardley.

LINACEÆ.—*Linum catharticum*, Balsall Heath, and banks of the Warwick canal; *Radiola millegrana*, Moseley Wake Green.

GERANIACEÆ.—*Geranium columbinum*, Green Lanes, Small Heath.

SAXIFRAGACEÆ.—*Adoxa moschatellina*, under Aston Park-wall, and in many lanes near Birmingham; *Parnassia palustris*, bogs on Moseley Common; *Leiogyne granulata*, lanes near Yardley.

LYTHRACEÆ.—*Peplis portula*, Green Lane, Small Heath; *Lythrum salicaria*, Hay-mill Brook, Yardley.

RHAMNACEÆ.—*Rhamnus frangula*, Moseley Common.

FABACEÆ.—*Melilotus officinalis*, fields near Moseley occasionally; *Medicago sativa*?, banks of new Dudley Canal; *Ornithopus pepusillus*, Moseley Wake Green.

ROSACEÆ.—*Potentilla comarum*, pool on Moseley Common.

CIRCEACEÆ.—*Circæa lutetiana*, Sheldon.

HALORAGACEÆ.—*Myriophyllum spicatum*, Rea, near Vaughton's Hole.

APIACEÆ.—*Archangelica officinalis*, bank of a small brook, on the left of the Stratford road; *Silaus pratensis*, field in Hob-lane, Yardley; *Helosciadium inundatum*, Moseley Wake Green; *Hydrocotyle vulgaris*, Moseley Wake Green.

VACCINACEÆ.—*Oxycoccus palustris*, bog on Moseley Common.

CAMPANULACEÆ.—*Campanula patula*, common in many places, Sheldon.

COMPOSITÆ.—*Eupatorium cannabinum*, Vaughton's Hole and at Yardley; *Pulicaria dysenterica*, common at Yardley; *Cnicus pratensis*, Moseley Common, and field in Hob Lane; *Serratula tinctoria*, near the Rea, Balsall Heath, lane from Yardley to Sheldon; *Centaurea solstitialis*, Edgbaston; *Chondrilla muralis*, Stony Lane, Sparkbrook; *Senecio sylvaticus*, lanes, common.

BORAGINACEÆ.—*Anchusa sempervirens*, near Moseley Hall, and Edgbaston.

PLANTAGINACEÆ.—*Plantago coronopus*, Moseley Wake Green.

ERICACEÆ.—*Erica tetralix*, and *E. cinerea*, Moseley Common.

GENTIANACEÆ.—*Menyanthes trifoliata*, pond on Moseley Common.

PRIMULACEÆ.—*Centunculus minimus*, Moseley Wake Green; *Anagallis tenella*, bog on Moseley Common.

SCROPHULARINACEÆ.—*Veronica scutellata*, Moseley Wake Green; *Pedicularis palustris*, bog on Moseley Common; *P. sylvatica*, lanes near Moseley.

MELAMPYRACEÆ.—*Melampyrum pratense*, the Beech Woods.

LAMIACEÆ.—*Mentha gentilis*, Yardley; *Stachys arvensis*, Yardley-field; *Nepeta cataria*, Yardley; *Scutellaria galericulata*, pond on Moseley Common, and bank of Warwick canal; *S. minor*, bog on Moseley Common.

POLYGONACEÆ.—*Polygonum bistorta*, lane from Cannon Hall to Moor Green.

EUPHORBIACEÆ.—*Mercurialis perennis*, Sheldon church-yard.

## SUB-CLASS II.—MONOCOTYLEDONES.

JUNCAGINACEÆ.—*Triglochin palustre*, meadows near the Rea.

ORCHIDACEÆ.—*Listera ovata*, and *Orchis morio*, *mascula*, *latifolia*, and *maculata*, common about Sheldon.

MELANTHACEÆ.—*Colchicum autumnale*, common in wet fields near Yardley.

AMARYLLIDACEÆ.—*Narcissus pseudo-narcissus*, field at Showell Green, and fields near Yardley.

LILIACEÆ.—*Allium ursinum*, fields and brooksides near Moseley and Yardley.

BUTOMACEÆ.—*Butomus umbellatus*, Vaughton's Hole.

JUNCACEÆ.—*Narthecium ossifragum*, bog on Moseley Common.

CYPERACEÆ.—*Rhynchospora alba*, bogs on Moseley Common ; *Eriophorum vaginatum*, *angustifolium*, bog on Moseley Common ; *Carex stellata*, *ovalis*, *remota*, Moseley Common ; *C. paniculata*, pond at Edgbaston, near Strawberry Vale ; *C. divulsa*, same place ; *C. vulpina*, Shady Lanes, common ; *C. sylvatica*, Edgbaston Lane, opposite Cannon Hall gates ; *C. pseudo-cyperus*, ditch in a field on the Balsall Heath side of the Rea ; *C. flava*, *binervis*, *præcox*, *panicæa*, *cæspitosa*, Moseley Common ; *C. acuta*, *paludosa*, *riparia*, bank of the Warwick Canal ; *C. vesicaria*, pond on Moseley Common ; *C. lævigata*, moist field at Highgate, not far from the Rea.

GRAMINACEÆ.—*Molinia cærulea*, Moseley Common ; *Melica uniflora*, common in shady lanes.

## CLASS II., CELLULARES.—SUB-CLASS III., ACOTYLEDONES.

POLYPODIACEÆ.—*Aspidium lobatum*, Yardley ; *A. oreopteris*, *cristatum*, *dilatatum*, Moseley Common ; *Asplenium adiantum-nigrum*, *trichomanes*, Green Lane, Yardley ; *A. ruta-muraria*, old walls, Hall Green, but not common ; *A. filix-fœmina*, lanes, common ; *Blechnum boreale*, Moseley Common ; *Scolopendrium vulgare*, lanes near Yardley occasionally.

OSMUNDACEÆ.—*Osmunda regalis*, Moseley Common.

OPHIOGLOSSACEÆ.—*Ophioglossum vulgatum*, meadow at the Rectory, Sheldon.

LYCOPODIACEÆ.—*Lycopodium selago*, bog on Moseley Common.

M. A. BEILBY.

[We have taken the liberty of supplying, in the above list, the family names from the *second* edition of Lindley's work, which will, we hope, meet the wishes of our correspondent.—EDS.]

CATALOGUE OF SOME OF THE RARER SPECIES OF PLANTS  
FOUND IN THE NEIGHBOURHOOD OF LICHFIELD.

CLASS I.—*Chara flexilis*.

CLASS II.—*Veronica scutellata*, *montana*, *Utricularia vulgaris* (ditches near Wichnor), *Lycopus Europæus* (Stow), *Circæa luteana*.

CLASS III.—*Valeriana officinalis* and *dioica*, *Fedia olitoria*, *dentata*.

CLASS IV.—*Dipsacus sylvestris* and *pilosus* (Hopwas Wood), *Asperula odorata* (Hopwas Wood), *Scabiosa succisa*, *Galium erectum* (Swinfen Pastures), *Plantago coronopus*, *Sanguisorba officinalis*, *Parietaria officinalis*, *Mænchia fontana*, *Potamogeton gramineus*.

CLASS V.—*Echium vulgare* (Thickbroom), *Myosotis cæspitosa*, *Symphytum officinale*, *tuberosum*, *Borago officinale*, *Menyanthes trifoliata* (bog, Paper Mill), *Lysimachia vulgaris*, *nemorum*, *nummularia* (Woods about Curbro'), *Anagallis tenella*, *Campanula patula*, *latifolia*, *hederacea*, *Hyoscyamus niger*, *Solanum nigrum*, *Rhamnus frangula*, *catharticus*, *Viola palustris*, *Sanicula Europæa*, *Sium angustifolium*, *Myrrhis temulenta*, *Anthriscus vulgaris*, *Angelica sylvestris*, *Pimpinella magna* (Needwood Forest, nine miles), *Viburnum opulus*, *Parnassia palustris*, *Drosera rotundifolia*, *longifolia*.

CLASS VI.—*Convallaria majalis* (Curbro' Wood), *Berberis vulgaris* (hedges near Hints), *Peplis portula*, *Narcissus pseudo-narcissus*, *Narthecium ossifragum*, *Acorus calamus* (Tamworth), *Triglochin palustre*.

CLASS VIII.—*Epilobium angustifolium* (Curbro' Wood), *E. roseum* (Pipemarsh), *Chlora perfoliata*, *Erica tetralix*, *cinerea*, *Polygonum bistorta*, *Adoxa moschatellina*, *Paris quadrifolia*.

CLASS IX.—*Butomus umbellatus*.

CLASS X.—*Saxifraga granulata*, *tridactylites*, *Scleranthus annuus*, *perennis*, *Chrysosplenium alternifolium*, *oppositifolium*, *Saponaria officinalis* (Tamworth), *Silene inflata*, *noctiflora*, *Stellaria graminea*, *Sedum telephium*.

CLASS XI.—*Lythrum salicaria*, *hyssopifolium* (Tamworth), *Reseda luteola*.

CLASS XII.—*Spiræa salicifolia* (Needwood, nine miles), *Geum rivale*, *Comarum palustre*.

CLASS XIII.—*Papaver argemone*, *dubium*, *somniferum*, *Thalictrum flavum*, *Nuphar lutea*, *Nymphæa alba* (Tamworth).

CLASS XIV.—*Mentha hirsuta*, *pulegium*, *Nepeta catària*, *Marubium vulgare*, *Verbena officinalis*, *Thymus acinos*, *calamintha*, *Scutellaria minor*, *Melampyrum pratense*.

CLASS XV.—*Lepidium campestre*, *Teesdalia nudicaulis*, *Cardamine amara*, *Turritis glabra*.

CLASS XVI.—*Erodium maritimum*, *Geranium lucidum*, *columbinum*, *pyrenaicum*.

CLASS XVII.—*Fumaria capreolata*, *Genista anglica*, *Ononis arvensis*, *Vicia angustifolia*, *lathyroides*, *Ervum tetraspermum*, *E. hirsutum*, *Trifolium striatum*, *T. arvense*, *Lotus decumbens*.

CLASS XVIII.—*Hypericum androsæmum* (Hopwas, five miles), *H. elodes*.

CLASS XIX.—*Tragopogon pratensis*, *Hieracium umbellatum*, *sabaudum*, *Serratula tinctoria*, *Bidens cernua*, *Gnaphalium erectum* (Hopwas), *G. germanicum*, *Erigeron acre*, *Senecio sylvaticus*, *Solidago virgaurea* (Hopwas), *Anthemis nobilis*, *cotula*.

CLASS XX.—*Orchis bifolia*, *Epipactis latifolia*, *Listera ovata*, *Malaxis paludosa*.

CLASS XXIV.—*Aspidium angulare*, *oreopteris*, *lobatum*, *Asplenium ruta-muraria*, *trichomanes*, *Scolopendrium vulgare*, *Lycopodium clavatum*, *Ophioglossum vulgatum*, *Equisetum sylvaticum*, *fluviatile*, *arvense*, *hyemale*.

The above are all found in the immediate vicinity of Lichfield, unless the contrary is stated.

M. A. JACKSON.

Lichfield.

## THE ORNITHOLOGICAL SOCIETY OF LONDON.

WE have watched the rise and progress of this infant Society with unusual interest and anxiety ; and we are happy in being now able to congratulate our readers upon its establishment on a firm basis. The original programme, or heads of the plan which the Provisional Committee recommended the members of the Society to adopt, had our cordial and unqualified approbation ; and when the general meeting of the 26th of April referred that plan to the con-



sideration of the newly appointed council, we felt that the names of the noblemen and gentlemen of whom that body is composed afforded an ample guarantee that the whole plan, unmutilated and uncurtailed of its fair proportions, would, sooner or later, be carried into execution. We question whether any society in England can boast such a list of names as the Council of the Ornithological Society contains. The Earl of Liverpool is President; the Duke of Bedford, the Bishop of Norwich (more dear to ornithologists as the Rev. E. Stanley), Sir Robert Peel, Macleay, Swainson, and Vigors, are the Vice-Presidents, all members of the Council; as are also the Earl of Derby, Dr. Burchell, Mr. Ridley Colborne, J. E. Gray, Captain Mangles, the Earl of Orkney, and Dr. Royle. What may not be expected and obtained from such men? Their very names are in themselves a host. We were present at the opening of the rooms in Pall Mall at the general meeting on the 3rd instant. In the absence of Lord Liverpool, Mr. Macleay, the father of British zoological science, took the chair amid the hearty applause of the meeting. He opened the proceedings in a short speech, in which, after congratulating the Society upon their attainment of the two most important preliminary objects, "a local habitation and a name," he briefly stated that the present condition of science required the establishment of an ornithological society; that the plan upon which this Society is projected was eminently calculated to further the interests of science and to produce practical advantages to all classes of the public; and that the Society might already be said to be firmly and permanently established. The Council then presented their Report, which was approved and ordered to be printed. Having obtained a copy we propose to give it entire, as it sketches the whole outline of the plan which the Council intend to execute:—

"In pursuance of the resolution of the last general meeting, by which the scheme recommended by the Provisional Committee was referred to the Council, and the Council were directed to publish a short statement of the views of the Society, they proceeded to consider what portions of the scheme they could venture, in the then state of the Society, to carry into execution, and embodied them in the prospectus, of which each member has been furnished with a copy. The total number of members is now one hundred and seventy-four; and, considering that these members have been elected while the Society could hold out the inducement of prospective advantages only, there appears well-founded reason for anticipating a very extensive and powerful support from the public so soon as the

Society shall be in a condition to offer immediate and actual advantages to its members. The Council will endeavour, gradually and securely, to extend the basis of the Society, and to embrace, as their financial means may allow, the whole of the following objects, which they consider are obviously (in the words of the prospectus) legitimate objects of a National Ornithological Society, viz.: The free exhibition of living birds in the public parks; the introduction, breeding, and distribution (with a view to the naturalization) of all such foreign birds as are suited for domestication in preserves, poultry yards, and cages; the publication and patronage of scientific, popular, and practical works on Ornithology; the formation of an useful and interesting museum, and a standard ornithological library of consultation and reference; the institution of periodical meetings, lectures, and prizes for ornithological essays, and for the breeding of useful and ornamental foreign birds. The extent to which the Council will venture to attempt these objects, will depend entirely upon the means which may be placed at their disposal; they are confident, however, that the mere endeavour to accomplish such objects can hardly fail to be serviceable to Science, to be popular and attractive, and to be productive of practical utility. The Council have great satisfaction in stating that a considerable majority of the most eminent British ornithologists have promised their co-operation and support. So many members of the Society have offered donations, and loans of specimens for exhibition in the museum whenever it should be opened, and so important it appeared, in the present state of the Society, to bring the members as much as possible together, for the attainment of their common objects and the rapid extension of the institution, that the Council conceive that its interests would best be consulted by providing, without further delay, as good an accommodation for the meetings, museum, and library, as the circumstances of the Society would afford: they have, therefore, taken these rooms for a period of three months, renewable upon the same terms, viz. £140. per annum. They propose that (Sundays excepted) the rooms should be daily open to members and their friends from half-past nine till six, and that the museum and library should be always open, without restriction, to scientific persons and artists.—The Earl of Liverpool, as President, has appointed the following noblemen and gentlemen to be Vice Presidents of the Society, viz.: His Grace the Duke of Bedford, the Bishop of Norwich, Sir Robert Peel, Bart., M.P., W. S. Macleay, Esq., W. Swainson, Esq., and N. A. Vigors, Esq., M.P.—The Council have elected the Earl of Derby and Dr. Bur-

chell Honorary Members of the Society and *ex-officio* Members of the Council, and it is concluded that there can be but one opinion of their eminent fitness for these appointments.—Mr. Holl has undertaken to act as Secretary, jointly with Mr. Harry Chester, until further arrangements can be made by the Council.—The Council are convinced that the real value of the Society, its usefulness, and means of permanent popularity, will depend mainly on the early acquisition of a valuable museum and library, and they strongly recommend that great efforts should be made to secure this important point: they, therefore, propose that a separate fund should be created for the express purpose of furnishing books, cabinets, and specimens of stuffed birds, skins, nests, eggs, skeletons, and anatomical parts and preparations to illustrate the habits and the internal and external structure of birds; that a book should be opened for "*Subscriptions to the Museum and Library Fund*," and that the property acquired by these subscriptions should remain vested in the names of the subscribers until the general funds of the Society be sufficient to repay to the Subscribers the sums which might be advanced for this purpose. The Council confidently appeal to the liberality of the friends of the Society, to furnish in this manner the means of establishing it at once upon an honorable and advantageous footing.—In conclusion, the Council are anxious to impress upon the minds of the members that the popularity of the Society will be greater or less in proportion to the extension or contraction of its basis; that, by a judicious combination of the scientific, the attractive, and the practical, not only good will be effected, but the means of effecting it will be increased, and the support of all parties may be counted upon, from those who look to the improvement of the breeds of domestic poultry, to those who delight in the loftiest speculations of Science.—Books are opened at the Society's rooms for subscriptions to the museum and library fund, and for donations to the general funds, to the library, to the museum, and to the collection of living birds."

The reading of the Report was followed by a very interesting discussion of the various modes in which the institution might be made to work for the public good: for our own part it appears to us that all its objects are admirable. It proposes to unite all classes of ornithologists for the attainment of their common objects; and it has already united Mr. Vigors, Swainson, Macleay, Lord Derby, Stanley, Gray, Horsfield, Yarrell, Mudie, Sykes, Gould, Burchell, Richardson, Selby—why prolong the list? We have stated that the Earl of Derby and Dr. Burchell have been elected

honorary members: such appointments reflect equal honour upon the two parties. We hope that Dr. Burchell, in this well-deserved compliment, will perceive that he is not yet forgotten in the scientific world, which (alas for the interests of science!) he has of late too much deserted; and we hail his acceptance of this honour as a pledge that he will thrust his sickle into the harvest of knowledge which he possesses in his close-sealed collections; that he will do tardy justice to science, to his friends who are anxious for his fame, and (though last, not least) to himself.

The free exhibition of living birds in the public parks would alone stamp this Society with the mark of pre-eminent liberality. Our country friends can have little notion of the extraordinary interest which is created by the collection of aquatic birds in St. James's Park. On Sundays the banks of the lake are even inconveniently crowded with thousands upon thousands of people. It is, indeed, an attractive sight; the *locale* itself is particularly beautiful, and the numerous young broods that are just now upon the water add greatly to the interest of the scene. The advantages of introducing suitable foreign birds into this country are too obvious to be mentioned; they are exemplified in the Pheasant, Turkey, and Canary Bird. The publication of scientific and practically useful works on Ornithology will be a boon of incalculable value. With regard to the museum and library, we will only say we are glad that a foundation of each has been already laid, and we hope that the suggestion which Mr. Vigors made at the general meeting will be attended to, namely, that the Zoological Society should present their duplicate birds to the museum of the new institution.

The periodical meetings and lectures will be interesting, and in many ways useful; and in estimating the advantages of prize shews of birds we have only to refer to the analogous shews of the horticultural societies. You have exhibitions of fruit and flowers—why not have exhibitions of birds? We must now take a quarter's leave of the Ornithological Society of London. May it never disappoint our expectations!

## PROCEEDINGS OF PROVINCIAL SOCIETIES.

### WORCESTERSHIRE NATURAL HISTORY SOCIETY.

WE have great pleasure in recording the increasing prosperity of this Society, and the rapid progress it has made in promoting scientific inquiry in the several branches of Natural History. During the past session, a series of highly interesting lectures have been delivered on various subjects, including one by the Rev. John Pearson, on the Influence of Natural History on the religious and moral Character of Man, of which the following is an abstract :—

After dwelling upon the frame of mind in which the study of Nature should be approached, the lecturer proceeded: "We are apt to speak of religious and moral influences as matters of course—as abstract principles which alone require to be known that they may be appreciated and adopted; we imagine that they are recommended by their own intrinsic weight and character, and that the mind necessarily prostrates itself before their consecrated shrine. Do we not deceive ourselves by the speciousness of this conclusion? Do we not too often fancy ourselves in possession of the feelings without sufficiently estimating the means by which they are to be obtained, and thus appropriate to ourselves a pharisaical conviction which deludes with the form rather than confers the substance? Do we not too often amuse ourselves with lights and shades under the impression that we grasp the reality? It is well known to the cultivator of the soil, that he can expect no produce unless he labours with a persevering and untiring hand; the mechanic, the artist, the man of science, know full well the impossibility of reaching excellence without due preparation and study. If thus it is in the ordinary attainment of perfection, may we not draw the same conclusion in relation to the influences upon the mind? Let us look to the untutored and unlettered barbarian. We are told that he

"Sees God in clouds and hears him in the wind."

This appears to rest more in the inspiration of the poet than in the realities of truth. Dependence upon a superior agency is one of the qualities of the human mind; but, in a state of Nature, how does man display its character? By falling down before a stock or a stone, a Vishnu or a Juganaut; thus idolizing the creature of his own invention, and propitiating his imaginary deity as the means of support in the pursuit of his unsubdued and unhallowed passions.

\* \* \* If then it shall be admitted that we require every aid and assistance in perfecting the intentions of the Deity, that it is our duty as our interest to prepare by cultivation and by industry for the reception of those truths revealed to man, where shall we find

such able and effectual assistance as in the contemplation of the stupendous fabric which was formed by the Almighty Creator, and in reading in the book of Nature those salutary and instructive lessons before which even scepticism is baffled, and before which the highest reach of intellect in every age and under every clime has bowed with confidence and trust? Unhappily, however, the various proofs of divine power and divine beneficence are looked upon by the mass of mankind in too negative a light: yesterday, to-day, and every day they present the same unvarying phenomena, disregarded or unappreciated by the ordinary observer. The richest treasures of Nature are to him, like leaves in the Sybil's book—a charmed knowledge, as it were, hermetically sealed, because he will not open the pages and appropriate to himself the precious contents. From whence, then, this apathy to the beauties of creation? why have they not been received into the inner man in aid of that scheme of regeneration which has been offered for his acceptance? The reason is obvious: he has been untaught and unschooled in the great volume of Nature; his attention has not been directed to its instructive lessons; he has not been made acquainted with its contents; his eye first opened upon all its charms, and because they have exhibited an uniform and even aspect, he sees nothing wonderful in that which is so familiar." The lecturer then strongly enforced the necessity of imbuing the youthful mind with the love and knowledge of the works of God, and thus proceeds: "There is a grandeur, a beauty, and a harmony in Nature which, when rightly considered, cannot fail to direct the heart and mind to contemplations beyond this world and all its concerns. The lover of Nature treads, as it were, upon holy ground, unpolluted by the passions which usually agitate and perplex him in the more busy scenes of life: all is tranquil, serene, and composed; the tossings of the storm are still; he beholds the heavens, the sun, the moon, the stars, acting in one uniform system—'each has its place appointed, each its course;' he contemplates the earth and its adaptation to the uses, the conveniencies, and pleasures of existence, 'fraught with all comforts, nor yet one withheld;' he looks into the detail of Nature, and finds the minutest particle contributing to the mighty whole, and each formed by the Divine Artificer for the happiness of his creatures."

After further pursuing this train of thought, the lecturer proceeded to state his regret that, through our own imperfect perceptions and other causes, any apparent discrepancy should have arisen between revelation and the discoveries of modern science. These discrepancies had been satisfactorily reconciled by others, but as the objections may have been more widely spread than the refutations, he considered it his duty to examine the subject. "Indeed," he observes, "some examination of this question appears indispensable; for should the results of philosophical investigation prove essentially repugnant to the scriptural account, to me, at least, it appears most conducive to the welfare of mankind that we should distrust the

perceptions of our own limited and imperfect faculties, and relinquish a science the results of which must be regretted by every friend of social order, moral excellence, and religious truth." The difficulties to which the lecturer refers arise from the disclosures made by Geology respecting the lapse of very long periods of time before the six days creation, as recorded by Moses. After expressing his conviction that the word and works of God must, in all essentials, point in the same direction and lead to similar conclusions, the lecturer thus states his opinion that the object of the Mosaic narration was strictly religious and in no degree scientific. "Let us, for a moment, reflect: if it had pleased God to lay open the whole field of Nature and science to the view of the inspired historian, for the sake of its farther promulgation, it would have been also necessary to have imparted a similar knowledge to his hearers, or their minds would have been involved in useless speculations and scientific technicalities, instead of anxiously intent on the far more important information which the narrative conveys. We should ever bear in memory this important fact, that it was not the intention to inform mankind how the world was made, but by whom—not in what manner it pleased the Almighty to call creation into existence, but that he commanded and it was done." The lecturer then goes on to state the views taken by those who consider the material substance of our globe to be of no older date than, at first sight, the Mosaic account may imply. The first view—that the various geological phenomena may be accounted for by the convulsions that have taken place since the creation of man, and principally by the Mosaic deluge—he considers to be refuted by the vast thickness and innumerable sub-divisions of the stratified rocks, and by the numerous successions they contain of the remains of animals and vegetables; those in what may be termed the transition rocks, where organic remains are first found belonging to extinct species. It is still a matter of doubt whether a really fossil skeleton of man has ever been discovered, and certain it is that none has ever been found in any of the lower strata; consequently many successions of animals must have existed before man was first created." We are obliged to abridge the discussion upon this interesting question. The next view alluded to is entertained by those who may be said to hold a middle course upon this subject. They consider that no system existed previous to the first day of the Mosaic account, and that all difficulties may be overcome by extending the word "day" to an indefinite period, instead of a single revolution of the earth. In the opinion of the lecturer, there exist strong scientific, theological, and critical objections to this view. It appears that the remains of the most ancient marine animals occur in the same strata with the earliest remains of vegetables; so the origin of animals and plants must have been nearly cotemporaneous. The length of each day is distinctly marked by the emphatic mention of the evening and the morning as its boundaries. It is also most improbable that the sun should not have been created or made

to appear till the fourth day if the earth had been for ages covered with vegetation, which, according to this theory, it must have been, the plants having been made on the third day. In the opinion of the lecturer, geological evidence drives us to the conclusion that former systems did exist prior to the biblical chronology, and that this view is in accordance with, rather than repugnant to, the Mosaic narrative. Moses only records the present condition of the earth, and whether it was formed from the wreck of former systems inhabited by animals is left entirely an open question. About six thousand years have elapsed since light was commanded to descend, at which period the Mosaic chronology, and consequently our world, commenced; but is there no intimation given that a material substance was formed at a far prior date. The lecturer remarks, "The book of Genesis opens thus: "In the beginning God created the heaven and the earth." It is worthy of remark that the Gospel of St. John opens in language strikingly similar, "In the beginning was the word." If we place, in any degree, a similar interpretation upon similar words, we are here afforded some clue—a clue, indeed, which, while it may direct, at the same time must overwhelm the mind with its immensity; for it places the first creation of the heavens and the earth in the deepest recess of time, subsequent only to the one Eternal, 'by whom all things were made.'" The lecturer then proceeds to examine closely the two first verses of Genesis, acknowledging that a part of the following argument is taken from a note in Dr. Buckland's *Bridgewater treatise*. "The point upon which the interpretation of the first chapter of Genesis appears, in the opinion of many persons, to turn, is this, whether the two first verses are merely a summary statement of what is related afterwards in detail, in the creation which took place in the six days; or whether they contain in themselves an act of creation prior to, and distinct from, what follows. The latter seems to be decidedly the correct opinion, and for these reasons: There is, in the first place, no other account of the creation of the earth, except in the first verse; in the next place, the second verse describes the state of the earth at some period after it was created, and before light was commanded to descend upon it. Some persons hold that the act of creation recorded in the first verse constitutes a portion of the work of the first day, but reflection leads to a different conclusion; for you will observe that each separate day's creation commences with the words 'And God said;' and therefore the very form of the narrative seems to imply that when the creation of the first day began these words were first used—i. e., with the creation of light in verse the third. Accordingly, in some old editions of *The Bible*, where there is no division into verses, you actually find a break at the end of what is now the second verse; and in Luther's *Bible* you have, in addition, the figure 1 placed immediately before what is, at present, the third verse, as being the beginning of the account of the creation of the first day. Of the fathers, Augustine, Theodocet, and others, have confirmed this view by their testimony; indeed, I could produce the



evidence of so many writers eminent for their piety and their learning, establishing this interpretation, that it appears most unfair and uncharitable to accuse geologists of the present day of the impious attempt to bend the text of the sacred writings to their own prejudices and views." From these and other arguments the lecturer arrives at the conclusion that if, as the most approved science and philosophy demonstrate, a world did exist, inhabited by unknown animals, before our system was called into being, there is nothing in the Mosaic account repugnant to such a view; that his account was intended as the history of the present earth and of the ancestors of its present inhabitants, and also to convey religious and moral instruction to the generation whom he addressed, and to all after ages. After removing any religious difficulty that might exist in the pursuits of Geology—a most important branch of natural science—he thus cautions his hearers against rash and useless speculations: "It would be foreign to my subject to enter in detail upon the six days creation. Over many parts of that glorious and miraculous event science has shed her light, over others mystery has thrown her thickest veil, concealing them from the knowledge, yet leaving them to the admiration, of man. Often, indeed, in our contemplations on the works of providence, even when glorying in the splendid accessions which science has made in these latter days, often are we constrained to acknowledge that the injunction of Milton is not devoid of philosophy:—

‘Whether the sun, predominant in heaven,  
Rise on the earth, or earth rise on the sun—  
He from the east his flaming road begin,  
Or she from west her silent course advance  
With inoffensive pace that, spinning, sleeps  
On her soft axle while she paces even  
And bears thee soft with the smooth air along—  
Solicit not thy thoughts with matters hid:  
Leave them to God above.’

The doubt conveyed in these lines has been solved, but the warning need not be disregarded."

The lecturer next proved, by the authority of La Place, that no animal could have existed at the time of the Mosaic creation, however they might before, thus destroying the unphilosophical theory of an eternal successive generation of animals; and also instanced Cuvier's proof that man was first created about six thousand years ago. He then proceeded to show, at considerable length, the harmonious adaptations that pervade the universe, drawing his illustrations from the mutual attractions and movements of the heavenly bodies, and from thence the unity of design evinced in the animal and vegetable kingdom, describing creative power in the words of the poet:—

“Lives through all life, extends through all extent,  
Spreads undivided, operates unspent.”

Having concluded this part of his subject, he illustrated the close connection between natural philosophy and religious devotion by quoting the views entertained of the nature and attributes of the Deity by the ancient philosophers, of whom he remarked—"The ancients were deeply versed in most of those arts and sciences which could be obtained without the assistance of scientific instruments; and the extraordinary talents of many of their philosophers, and their eminent proficiency in Natural History, abstract reasoning, and Metaphysics, opened to them as clear and comprehensive a view as reason, unenlightened by revelation, could attain of the nature and attributes of the Deity. Aristotle says that God appears the cause of all things and a first principle; he also describes him as immortal, incorruptible, uncreated, and self-existing. Plato, although convinced of the unity of the Deity, frequently speaks of him in the plural number, out of indulgence, perhaps, to the prejudices of his countrymen. The following is a remarkable view which he takes of what constitutes blasphemy:—the first species is 'denying the existence of a Deity or Gods;' the second, 'admitting their existence, but denying that they care for man;' the third kind of blasphemy was that of 'men attempting to propitiate the Gods towards criminal acts, such as murder, &c., by prayers, thanksgiving, and sacrifice, thus making those pure beings accomplices in their crimes.' The first two of Plato's doctrines cannot be impeached; and how exactly should we agree with the last view of the great heathen in contemplating alone the purity of God! but thankful ought we to be that he has condescended to reveal to us the blessed truth that his love and mercy are equal to his justice." After quoting some fine passages from Epicurus, Plutarch, Seneca, and the elder Pliny, expressing their full belief in the omnipotence and unity of the God of Nature, the lecturer proceeds:—"Thus, then, have these wondrous men bequeathed us in their works a proud memorial of genius inspired by the contemplation of external Nature, and thus on every page have they engraved an inscription imperishable as that on the Athenian altar, 'to the unknown God.' Something, however, was still wanting: it was the light of revelation to pierce that mental cloud which philosophy alone was unable to dispel—it was the voice of an apostle, to declare unto them that Being whom they ignorantly adored. I will not describe, for it must be obvious to all, in how beautiful and comprehensive a manner the Deity whom we meet in every path of Nature is shadowed out to us in the sacred writings, and with what enthusiasm the ancient philosophers would have hailed that delineation as the fulfilment of their deepest speculations and fondest hopes. From the eye of every christian the veil has been long withdrawn which separates anxious doubt from the glorious certainty; and it is our privilege to peruse with unsatiated delight the works of Nature, and to rest with humble confidence on the written word of God." The lecturer then goes on to describe, with much enthusiasm, the elevating tendency of the contemplation of Nature, from the glorious objects

with which the mind is engaged ; and thus expresses the benefit to be derived from even the most casual observation :—" It is known only to the lover of Nature how moral and social a tone even the most cursory contemplation of her works is calculated to impart to the mind and to the heart. In the busy scenes of life our feelings are too often embittered and our passions excited by collision with our fellow men and by the very weight of material existence : but one look upon the smiling landscape, one glance at the glowing sky, dispels the gloom and infuses its sunshine into the breast. We see the great parent of all, who is kind to all, for he maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust. We catch something of this divine spirit, our passions are assuaged, our hearts are softened, our sympathies are awakened ; we return into the world and are irresistibly impelled to hold out the hand of reconciliation to an offending brother, and to extend to universal creation the sacred sentiments of charity and love." After some farther reflections, and a noble passage from a work of Linneus, expressive of his unbounded admiration of the works of God, but his consciousness of deep personal humiliation and abasement in their contemplation, the lecturer thus concluded his subject :—" We see, then, all that are illustrious for their genius and venerable for their worth unite in contemplating the Deity through the works of his hands, and, from hearts overflowing with devotion, in offering their unbounded and imperfect tribute of gratitude and praise. It is, indeed, a subject calculated to call forth every expression of the tongue, to elevate the intellect to its proudest summit, and yet to overwhelm it with the immensity and grandeur of the considerations which it involves. If the mind thus shrinks within itself, if the eye can scarcely view the present unmoved, what will support us in that awful hour when the earth shall rock from her deep foundations, when the heavens shall be rolled together like a scroll, when the sun shall be extinguished in eternal darkness, when Nature herself shall perish, and the soul shall survive the general wreck, and the spirit shall return to God who gave it? What, then, shall be our trust, when the present shall yield to the future, and prophecy be swallowed up in its own completion? Faith, strengthened by the contemplation of the works of God, and built upon the rock of his revelation—hope, cheered by his visible goodness and perfected by his gracious promises. These will not forsake us when Nature herself shall fail—these will sustain the shock of a dissolving universe, and support us in the presence of that stupendous Being who was, and is, and is to come. Thou, Lord, in the beginning, hast laid the foundations of the earth, and the heavens are the works of thine hands ; they shall perish, but thou remainest ; and they all shall wax old as doth a garment, and as a vesture shalt thou fold them up, and they shall be changed ; but thou art the same, and thy years shall not fail."

The fourth anniversary of the Society was held at the Museum on the 24th of May, the Right Rev. the Lord Bishop of Worcester in

the chair. H. Strickland, Esq., read the Annual Address of the Council, which, after alluding to the numerous and liberal donations to the museum and library, exhibited the labours of the Society in the advancement of science during the past year. The following is a sketch of the proceedings of the different Committees devoted to the several branches of science. In Meteorology, two valuable papers have been received, one by W. Addison, Esq., of Great Malvern—the other by John Williams, Esq., of Pitmaston, on the weather of 1836 compared with 1837, and the Influence of the late severe Season on Vegetation and the progress of Diseases. At the desire of the Statistical Committee, the Revs. Thos. and John Pearson have just published the Statistical History of Great Witley, preparatory to a general history of the country; and Sir Thomas Phillips is now preparing a similar account of the vicinity of Broadway. The Botanical Committee record their gratitude to Mr. Phipps Onslow for a liberal offer of specimens, and to the executors of the late Mr Purton, for a collection of *Cryptogamia* made by that eminent botanist. In Geology, several important discoveries are announced. The new Red Sandstone, which was long considered to be devoid of fossils, has been found by Mr. Amphlett, of Dunclett, to contain an abundance of vegetable remains at Hadley and Elmley Lovett. Similar fossils also occur at Breakback Hill, near Bromsgrove. Another stratum of sandstone near the top of the red marl at Birghill, near Eldersfield, has been found to contain bones and bivalve shells, and as this stratum is quarried at Ripple, at Inkberrow, and other places, it is recommended that further search be made for these curious remains. Some interesting observations have also been made on the superficial gravel of this county. This gravel is supposed to have been deposited partly by marine currents and partly by ancient rivers. If this view be correct, every gravel pit in the county may be expected to yield either marine shells or bones, and fresh-water shells. Jabez Allies, Esq., has found the former in the gravel at Kempsey, and the Rev. W. Parker has discovered bones and fresh-water shells at Bricklehampton. The Council conclude their address with recommending the Society and the public to make further search for these fossil remains, and to ascertain whether bones and fresh water shells are ever found in the gravel on the top of hills, or only, as seems to be the case, in the immediate vicinity of existing rivers and streams.

After a series of resolutions had been passed, the Rev. John Pearson rose to read his paper on British Ornithology. The lecturer remarked that “between the limited faculties of man and the boundless range of omnipotence there is an impassable gulph; and while we stand alone in our insignificance, and every movement we make is calculated to add humility to the humble and to strike with dismay the arrogant and presuming, we are allowed to follow the works of creation with admiration of their beauty, with amazement at their gigantic structure and correctness of order, and with deep-seated gratitude for the benefits and advantages they are calculated to afford. Religion approves and philosophy promotes these generous

views ; and be the walk ever so humble, yet inquiry opens to the contemplative mind stores of knowledge and instruction, which cannot, when properly viewed, do otherwise than interest and improve the mind and heart of man. The branch of science which it is my intention to touch upon, although not the highest in the range of Natural History, is one that offers that beautiful adaptation and fitness of the means to the end, that, whilst it can scarce fail to impress even the casual observer, sinks deep into the heart of the more reflective inquirer, and strikes upon a

“Chord within, which, touched by Nature’s hand,  
Reciprocates her holiest sympathies.”

There are none of the lighter branches of Natural History the pursuit of which is attended with greater pleasure than that of Ornithology. In this study our admiration is excited, not only by the beautiful forms and plumage, the harmonious songs and elegant motions, of the feathered race, but the contemplation also of their interesting habits and wonderful instincts affords full scope to our speculations and astonishment. It has the advantage also of not being a solitary or isolated study, for it may be embraced in the active inquiries of the geologist and botanist. It is unfortunate that many ornithologists of the present day appear to prefer the duty of the cabinet to that of the field, and confine themselves to the arrangement or re-naming of species already well known, instead of giving their attention to the discovery of new species or the investigation of new habits. Doubtless a correct and scientific nomenclature is absolutely necessary, but the continual and unnecessary change of common names is the greatest obstacle to the pursuit, and the greatest drawback to the acquisition of knowledge, that can possibly be invented or imagined.” The lecturer then divided birds into the five following heads :—*Raptores*, or Preyers, such as the Hawk ; *Insessores*, or Perchers, such as the Sparrow ; *Rasores*, or Scratchers, such as the Partridge ; *Grallatores*, or Waders, such as the Heron ; *Natatores*, or Swimmers, such as the Wigeon ; and these he divided into numerous families and sections. He considered British birds (of course, including those which visit our shores) to amount to upwards of three hundred species, but believed it impossible to determine the precise number. He thence proceeded to take a view of the most general and striking characteristics of Ornithology, such as the forms, flight, migration, instincts and affections, age, food, and songs of birds. The construction of birds is very admirable. Independent of the external beauty and buoyancy of their shapes, their delicate plumage, at once an ornament and defence, and the combination of elasticity and strength so observable in their wings, their peculiar adaptation is displayed in a large portion of the skeleton being formed into receptacles for air, the interior of most bones of adult birds being hollow. The bones of young birds are filled with marrow,

which becomes, however, gradually absorbed, to make room for the admission of air. The air passes into the lungs by a communication with the windpipe, and is conveyed into a number of membranous cells, which lie in various bones. Could a man move at the pace of the swiftest bird, as he is not furnished with internal reservoirs similar to those possessed by birds, the actual resistance of the air would soon suffocate him. The act of flying is performed by the bird leaping from the ground or dropping from a height, and raising its wings at the same time; and the velocity with which the bird ascends is proportioned to the velocity with which the strokes of the wings are repeated upon the air. When birds fly in a horizontal direction their motion is not in a straight line, but inclining upwards, and the body then comes down to a lower level before another stroke is made; so that they move in a succession of curves. With regard to migration, the lecturer observes, "About twenty-five kinds of birds regularly visit this country in the spring, and about seventeen in the autumn. The Wryneck and Lesser Willow Wren, or Chiffchaff, our earliest spring visitors, arrive here generally towards the end of March; the Flycatcher, which is the latest, about the middle of May. All our autumn visitors arrive much nearer together. The periods of migration are greatly influenced by the seasons. This spring, for instance, birds were generally very late in arriving: and yet we sometimes find anomalies in this as in other things; for I saw a Swallow on the 5th of April, nearly a fortnight earlier than they usually appear in this neighbourhood—a clear proof, too, that one Swallow does not make a summer. On the same day I saw a flight of Fieldfares, which had not yet left us—an unusual assemblage of spring and autumn visitors." After noticing the doubts of some naturalists as to the migration of our short-winged spring visitors, he continues, "But, notwithstanding all these difficulties, certain it is that many of the least of birds, and the most timid and inefficient of flyers, do migrate, many of them to Italy and the coast of the Mediterranean. They take advantage of a favourable breeze, and are doubtless lost by hundreds in the sea, should the wind become adverse. I will allow that a few instances have occurred of migrating birds being found in this country during winter in a torpid state, but these are only rare exceptions to the general rule. By some instinctive power, birds are enabled to select the narrowest channels of the sea, and also to traverse regions which, to our eyes, would present no mark or guide, and to arrive at the self-same spot which, each successive year, is the scene of their habitation. The eyes of birds are peculiarly quick and piercing, and it is supposed that they are guided by the appearance of the atmosphere, the clouds, and direction of the wind; these varying and uncertain causes, however, appear to me quite insufficient for the purpose. It is evident that practice is a great assistant to instinct; in the case of Carrier Pigeons, for instance, they are first taken a short distance from home—a quarter of a mile, perhaps—which distance is gradually increased, till at last these extraordinary

birds will accomplish hundreds of miles in safety. I have witnessed the flight of many Carrier Pigeons, and have only seen one unable to find his way. This bird, after taking a turn or two in the air, settled on a building, apparently quite bewildered. He was doubtless deficient in instinct or practice."

After entering into various particulars with regard to migration, and mentioning Dr. Hunter's refutation of the absurd notion that Swallows had the power of existing under water, the lecturer remarks:—"The obvious motives of migration are to be found in food, climate, and convenience for incubation and rearing of young. \* \* \* The instincts and affections of birds," he observes, "are very wonderful and beautiful. It would be difficult, in the case of birds, as we can in the case of dogs and some other animals, to attribute a superiority of instinct to one species over another. Doubtless the instincts of all correspond with their necessities; but perhaps I may not be wrong in ascribing the greater acuteness of perception to those birds which most easily acquire the power of articulating words. Philosophers have defined instinct to be 'that secret influence by which every species is impelled to pursue at all times the same way or track without any teaching or example.'" This definition he proves to be deficient, by giving many instances in which birds deviate from their usual course, particularly when the affections are engaged. Amongst others, he gives the following from White of Selborne:—"The Flycatcher builds every year in the vine that grows on the walls of my house. A pair of these little birds, one year, inadvertently placed their nest on a naked bough, perhaps in a shady time, not being aware of the inconvenience that followed; but a hot sunny season coming on before the brood was half-fledged, the reflection of the wall became insupportable, and must have inevitably destroyed the tender young had not affection suggested an expedient and prompted the parent birds to hover over the nest all the hotter hours, while with wings expanded and mouths gaping for breath they screened the heat from their suffering offspring."

The age of birds does not appear to bear the same proportion to the time of acquiring their full growth as it does in quadrupeds. In proportion to the size of their bodies, birds live much longer than either man or quadrupeds. Geese and Swans sometimes attain the age of seventy, and an instance of a Goose ninety years old has been known: Ravens and Eagles are supposed sometimes to reach an hundred. Even Linnets and other small birds have been kept in cages from fifteen to twenty years.

After giving some interesting particulars with regard to the food of birds, the lecturer proceeded to dwell upon their songs, which he did with much enthusiasm. We must, however, conclude our notice with the following reflections: "How impressive is the reflection which the history of birds, and, indeed, of other animals, is calculated to impart to the mind! All human affairs are transitory and unstable, and the fashion of them soon passes away. The ha-

bits, we may almost say the nature, of man is changed by time ; one race of men succeeds another, empires rise upon the ruins of former kingdoms, enlightenment and science progress, and again decline. Look, too, at languages: how various ! how imperfect ! how changeable ! How many have been swallowed up in the gulph of years, or descended to us entombed in a few ancient works ! Does not this speak plainly of the instability, the corruption, the fall, the confusion of man ? On the contrary, the race of animals, all destined to perish, while man is born for immortality, remain uniform in their generations, unmoved by the convulsions of the world, untouched by time ; and the song of a bird which now fills the air is the very same which, six thousand years ago, the first of his species poured forth in homage when he came perfect from the hand of his Creator."

Thomas Thursfield, Esq., next read a very able paper on the Basaltic Dyke at Shatterford, and the vegetable remains in the adjacent coal measure. The paper displayed deep research and an intimate knowledge of the subject ; and was illustrated by a drawing and many beautiful and valuable specimens.

On the motion of Mr. Aston, seconded by Mr. Cookes, a vote of thanks was given to the Rev. J. Pearson and Mr. Thursfield for their scientific and highly interesting papers ; and the meeting broke up, highly gratified with the proceedings which had been laid before them.

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#### SHROPSHIRE AND NORTH WALES NATURAL HISTORY AND ANTIQUARIAN SOCIETY.

THE session of this Society terminated on the 2nd of May, during which the following interesting lectures and valuable scientific papers have been read: *January*.—Lecture on Pneumatics, by Henry Johnson, M.D. ; on the Conversion of Cast-Iron into Plumbago, by Thomas Du Gard, M.D., F.G.S. ; a Continuation of the Shropshire Fauna, comprising a portion of the class *Aves*, by T. C. Eyton, Esq., F.L. and Z.S. *February*.—Lecture on the Affinities of Vertebrate Animals, by T. C. Eyton, Esq., F.L. and Z.S. *March*.—Lecture on Electricity, by Mr. Thomas Blunt ; on the Utility of Antiquarian Research as connected with the Remains of Shrewsbury Abbey, and recent discoveries therein, by Mr. Henry Pidgeon. *April*.—Lecture on Optics, by Henry Bloxam, Esq. ; on a Deposit of Mammalian Remains on the Coast of Kent, communicated by the Rev. B. H. Kennedy, D.D. *May*.—Lecture on the Metamorphoses of Plants, by W. A. Leighton, Esq., B.A. ; on the Composition of Soils, by the Rev. C. A. A. Lloyd, M.A. ; on the Roses of Britain, by Edwin Lees, F.L.S.

Among the very numerous donations to the Museum and Library lately received, the following may be enumerated as the more valu-



able:—Sixty-four Foreign Birds, from Mr. John Gould, F.Z.S.; Thirteen Silver Coins of Edward I., Edward II., and Alexander of Scotland, found in the bed of the river at Tutbury, Staffordshire, supposed to be part of the contents of the military chest of the Duke of Lancaster, when in retreat before Edward II., which was lost about that place, from C. C. Babington, Esq., F.L. and G.S.; a Collection of Fossils from the Chalk, &c., from C. C. Babington, Esq.; a large Collection of Roman and English Coins, from Sir A. V. Corbet, Bart.; African Pig, Doe and Fawn, numerous birds, crania, fresh-water shells, &c., from T. C. Eyton, Esq.; *Historical Register*, 14 vols. 8vo., from the Rev. Canon Newling; Collection of dried specimens of British *Rosæ* and *Rubi* from Edwin Lees, F.L.S., M.E.S.

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## CRITICAL NOTICES OF NEW PUBLICATIONS.

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*Reports on the Explosion of Steam Boilers*, by a Committee of the Franklin Institute of Pennsylvania. Part I., containing the first Report of Experiments made by the Committee for the Treasury Department of the United States. Part II., containing the General Report of the Committee.

The *Reports* now before us, from a committee of the Franklin Institute of Pennsylvania, are upon a subject of special interest to every community where steam is extensively used as a motive power.\* They emanate from an institution which has been very active in the promotion of the mechanic arts in the United States of North America, and come to us with the sanction of a committee of its members, and of its board of managers. The names of most of the gentlemen composing the Committee have been more or less familiar to the readers of the *Journal* published by the Franklin Institute.†

\* While this article was going through the press, the lamentable occurrence of an explosion of the boiler of a steamer at Hull renders it but too appropriate. The ignorance displayed before the coroner's inquest by those who were concerned in the management of the engine and boiler, shows plainly that light has not yet reached those in whose care our lives are so often placed.

† Our cotemporary, the *anonymous* editor of the *Magazine of Popular Science*, should at least have given himself the trouble to look into the facts of the case, before he insinuated a doubt of the qualifications of these gentlemen for the task imposed by the Franklin Institute. A reviewer should bring both candour and knowledge to his task, and our cotemporary really seems to have been wanting in both. We refer to the *Journal of the Franklin Institute* to show that seven of the members of the Committee, whose

On their appointment, in 1830, the Committee addressed letters to persons whom they supposed might furnish information in regard to the subject before them, and have published the replies in the same *Journal* in which their reports first appeared.\* At the request of the Secretary of the Treasury of the United States, they also undertook two series of experiments; the first intended to test the truth of the various causes which have been assigned for the explosions of steam boilers, and the second to determine the strength of the materials commonly used in their construction. The first-named series of experiments being that upon which the general report of the Committee is based, was published† next in order to the replies to their letters, and we were thus furnished with the means of judging, independently of the authority of the Committee, of the accuracy of the conclusions in their *General Report*. The second series of experiments is now in the course of publication.‡

We propose, in the following article, to give as full a view as the nature of our journal will admit of the *General Report* of this Committee, and of their experiments, inverting for this purpose the "inductive" order, and following the discussion of the causes of explosion as enumerated by the Committee, in their *General Report*, referring to the experiments as the subjects of them came under discussion.

1st. *Explosions may occur from undue pressure within a boiler, the pressure being gradually increased.*

It would seem that there could be no difference of opinion as to these being a "*vera causa*." Engineers have, however, alleged that boilers, particularly if made of copper, only rend by a gradually increased pressure, and thus discharge their contents without dangerous violence. A most dangerous maxim is stated, in this *Report*, to

works are under discussion, are, or were, Professors of Natural Philosophy or of Chemistry. Four other members we find, from the same source, to be practical mechanics. One other has written much on Mechanics. We are thus left in doubt as to the professions of but four, out of seventeen, of the Committee.

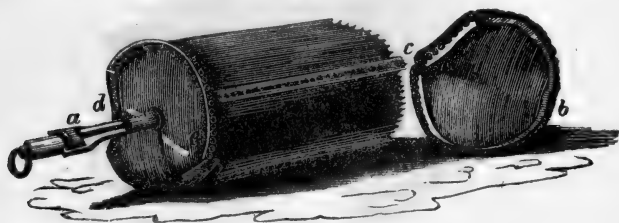
\* *Journal of the Franklin Institute*, vols. viii., ix., x.

† *Journal of the Franklin Institute*, vol. xvii., and London *Mechanics' Magazine*. The first and second parts of this *Report* have been printed in a separate form by the Franklin Institute, and kindly presented to several of our scientific societies.

‡ Both series of experiments were made by sub-committees, whose names are given in the Preface to the *Report*. On neither of them do we find the name of Professor Hare, who is vauntingly said by our cotemporary before noticed, in his attempt to discredit this *Report*, to have "openly stated that he never attended a single experiment." We do not intend to fatigue our readers by following the disingenuous criticisms of our anonymous friend in detail, considering, as we do, his review to be discreditable to a journal professing to give information upon science. It is the more objectionable because interspersed with general epithets of approbation, which are totally misapplied if the individual criticisms are in the least warranted. Besides perversions of fact, we have, in his review, such language as this:—"President Jackson and some of his fellow citizens *down east*;"—"There must be a district in Pennsylvania where the shamrock is worn!" &c.

be prevalent among engineers on the western waters of the United States, that, provided a full supply of water is kept in a boiler, there is no danger of explosion from increasing the steam pressure.\*

To set this question at rest, two cylinders—one of iron and one of copper—were partly filled with water and exposed over a fire, so as to increase the pressure of steam within; the greatest amount of this pressure, before the cylinder gave way, being registered by a spring



gauge. The material facts attending the bursting of the iron boiler are thus stated by the Committee :—

“The explosion tore off one of the heads, *b c*, of the cylinder, projecting the other parts of the boiler in an opposite direction, carrying with them, for a portion of the distance, the iron cylinder forming the furnace, and scattering the fuel in every direction. \* \* The boiler head was thrown fifteen feet, the boiler and spring register about six feet, and the furnace, weighing about forty-five pounds, was overturned and carried four feet. The pressure indicated by the register was  $11\frac{1}{2}$  atmospheres. \* \* The circumstances of this experiment show that the steam rose quite gradually on account of leaks in the boiler, increasing, probably, more rapidly as the quantity of water diminished, the intensity of the fire, meanwhile, increasing; that, at a certain period, the tension within had attained about eleven atmospheres, when the boiler *exploded violently*.”

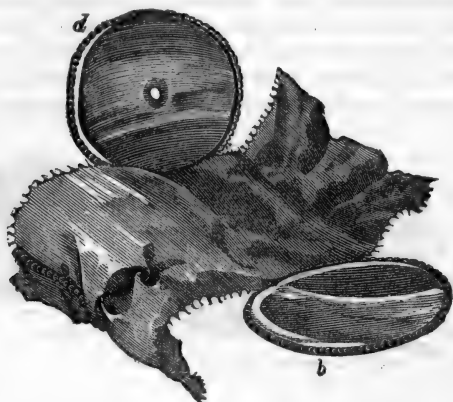
The copper cylinder was next subjected to experiment :

“As before, nothing remarkable occurred previous to the instant of explosion, and the members of the committee employed in the experiments were engaged in observing the boiler at the instant it exploded. A dense cloud of smoke and flame, capped by steam, rose from the pit; the stones and combustibles were widely scattered, and the boiler was thrown, in a single mass, about fifteen feet from the furnace. The noise attending this explosion was like that from the firing of an eight inch mortar.

“The boiler was rent as shown in the accompanying figure, giving way in an irregular line, just above the probable water-line on one side of the boiler, but not conforming to it. *d* and *b* were the lowest points in the two heads

\* This same opinion we see in the evidence of one of the parties examined before the coroner's inquest in relation to the late accident at Hull.

before the explosion. The sheet of copper was torn from the heads, un-



rolled, and irregularly bent, adhering to the heads for only a short distance near the top of each; and the heads were bent outwards. The thickness of the copper along the line of rupture varies from 0.25 to 0.35 of an inch, and the metal appears to have been highly heated at one end of the torn portion."

To a gradual increase of pressure beyond that which the material of the boiler would bear, the Committee refer certain well-known accidents, which are upon record; as that in Wellclose Square, London, that of the steamer, Rhone, &c.

The safety-valve being the means commonly relied on to prevent a dangerous accumulation of steam within a boiler, the Committee thus enumerate the causes which may render it inoperative:—Design on the part of the engineer or attendant, and adhesion of the valve to its seat by rust or other cause. This adhesion, the Committee consider, cannot be traced to the peculiar phenomenon observed when a disk is placed before an aperture, whence a fluid is rapidly issuing. This phenomenon has been the subject of much examination. The first observation of it is claimed by M. Clement, of Paris, and by Mr. Roberts, of Manchester. Theory and experiment both shew it to depend upon the relative dimensions of the disk and aperture; and as these are not very unequal in the case of the safety-valve, the tendency of the disk towards the opening is inconsiderable. This deduction is further confirmed by the experiments of the Committee, who used a graduated safety-valve, and compared its indications of pressure with those of a mercurial gauge, or with those deduced from the observed temperature of the water in the boiler. Two different valves were used in different parts of the series of experiments, both

being, however, of the same form—disk valves. This form is stated to have been selected as most applicable to practice, from the ease with which the touching surfaces can be ground into contact, and the impossibility of tightening by friction, as in the case of the cone. The observed pressures at which the valve rose were uniformly below the calculated pressures at which, allowing for the weight, leverage, and friction, the valve would have been expected to rise; the mean ratio being as 1 to 1.035. In no case was any undue adhesion observed. While these experiments are favourable to the use of the safety-valve, when well constructed and kept in good order, they cannot be considered as justifying that feeling which imagines a valve to be a security, without inquiring into its condition. On the contrary, we find in this *Report* a well-authenticated instance of great adhesion of the valve to its seat, requiring, when the pressure of the steam was above that which should have raised the valve, considerable force applied at the end of the lever to open it.

Besides two safety valves, the regulations for the safety of the steam engine, until lately in force in France, required that fusible plates, or plugs, should be placed in or over an opening into the boiler. These, giving way when the steam within reached the melting point of the alloy constituting the plate, allowed the escape of steam. These plates were intended besides to apply to a case in which the safety-valve is inoperative, namely, when, from a deficiency of water in the boiler, parts of the metal have become highly heated, and thus have heated the steam above the temperature corresponding to its density.\* The experiments made on these plates were numerous, and lead to a conclusion of considerable interest as affecting their use. It was found that the alloys composing the plates soften, in part, before they reach the temperature of fusion of the whole mass, and that liquid portions are forced out through the holes of the brass plate which, in practice, covers them, leaving a less fusible mass. In the case of one of the alloys, which melted above

\* That steam thus surcharged with heat may exist within a boiler which yet contains some water, appears to have been generally assumed. The fact was made the subject of experiment by the Committee, who found it to be as assumed. The steam was produced and kept up by a charcoal fire placed under a boiler, while a similar fire above the boiler surcharged with heat the steam produced. The committee found that the elastic force of the steam calculated on the supposition of its expanding by heat as a gas agreed very nearly with the observed force, differing but .05 of an atmosphere at the temperature of 533°. The thermometer giving the temperature of the water in the boiler had become deranged during the course of this experiment by an accident, but this close coincidence certainly rendered a repetition of the inquiry unnecessary. On these experiments, our good-natured cotemporary before referred to remarks: "The Sub-committee did not make one experiment on this subject; they decide upon the uncomfortable experiments of the preceding investigation, &c." Which uncomfortable experiments, as he facetiously (?) terms them, were quite as directly to the point as if they had been intended *solely* to apply to it, to the *exclusion* of all other deductions.

250° Fah., a portion was thus forced out, in the liquid state, at 223° Fah. The entire series of conclusions drawn by the Committee will serve to indicate their train of experiment, for the numerical results of which we must refer to the *Report* itself.

"The conclusions deduced from the foregoing experiments on metallic alloys may be thus stated:—

"1st. The impurities of common lead, tin, and bismuth, are usually not such as to affect materially the fusing points of their alloys.

"2nd. When mixed in equivalent proportions, tin and lead formed alloys, not presenting the characters of distinct chemical compounds, in definite proportions. The alloys between the range of one equivalent of tin to one of lead, and one equivalent of tin to six of lead, varied considerably in the interval between the temperature of commencing to lose fluidity and that at which the temperature of a thermometer, immersed in the solidifying metal, became [for an instant] stationary. These different alloys produced nearly the same stationary temperature in a thermometer plunged into the solidifying metal.

"3rd. Fusible metal plates, covered by a perforated metallic disk, and placed upon a steam-boiler, show signs of fluidity at the disk before the steam has attained the temperature of fusion of the alloy of which the plate is composed. This fluid metal oozes through the perforations in the disk, and the plate thus loses much of its substance before finally giving vent to the steam.

"4th. The under parts of the plate are not kept from fusion by a protecting film of oxide there formed.

"5th. The thickness of the plate is not important, provided only that it is sufficiently strong to resist the pressure of the steam at temperatures below its point of fusion.

"6th. The temperature at which the plates are cast, and the rate of cooling of the cast metal, do not affect the temperature at which the plates give vent to steam.

"7th. The effect stated in conclusion third is explained by the nature of the alloys used, which are formed of portions of different fluidities; the more fluid parts are forced out by the pressure of the steam, leaving the less fusible. These latter, in general, are burst, not melted.

"8th. By pressure in a receptacle provided with small openings this effect of separating the differently fluid portions of an alloy may be imitated.

"9th. Fusible alloys, used to indicate the temperature of any part of a steam-boiler, should not be exposed to the pressure of the steam; at least, not in such a way that the separation of the differently fusible constituents of the alloys may be effected."

We shall return to this subject under the next head, to which we now proceed.

2nd. *Explosions produced by the presence of unduly heated metal within a boiler.*

It was first observed, we believe, by the chemist Klaproth, that when small drops of water were in succession thrown into a red hot iron spoon, the first drops evaporated very slowly, and succeeding ones disappeared more rapidly as the vessel cooled. These observations, and others of an analogous sort, have been supposed to contradict the conclusion that highly heated metal can produce steam rapidly, when water was thrown upon it. M. Arago, in his *Essay upon the Explosions of Steam Boilers*, considers this as a capital difficulty to be

examined by experiment. The Committee of the Franklin Institute made this examination under two heads; 1st. As to the fact, whether or not high steam may be rapidly produced by water thrown into a red hot boiler; 2nd. The circumstances modifying the production of steam in such cases.

The experimental boiler being heated to redness, different quantities of water were thrown into it, producing various pressures of steam from three to twelve atmospheres.\*

We may here notice an opinion, formerly advocated by a practical engineer, that when water is thrown into a heated vessel containing steam surcharged with heat, it is the surcharged steam, and not the heated metal, which supplies the heat to the water to flash it into steam. This hypothesis was submitted to direct experiment by the Committee of the Franklin Institute. Steam having been produced within a boiler, was surcharged with heat by applying a charcoal fire to the top of the boiler. In this way the temperature of the steam was raised, in one experiment, to 533° F., at which it had an elasticity of 6.8 atmospheres, while steam of the full density, corresponding to that temperature, would (by calculation) have had a pressure of more than sixty atmospheres. Water being thrown into steam thus surcharged, invariably diminished its elasticity: thus showing that the theory which has so often been applied to refute the error of this hypothesis has in reality been rightly applied. Much difficulty appears to have been encountered in these experiments by an attempt to make them without more expense than the intrinsic worth of the matter to be determined warranted.†

\* In this last case the steam was produced in "a time not exceeding one or two minutes at the most," bursting one of the glass plates in the head of the experimental boiler, and which served to give a view of its interior.—Seven experiments are given, in which water was thrown into the boiler when the metal was red hot. Our ingenuous critic remarks that "the blowing out of one of the little windows of the boiler put an end to it [the series of experiments] when it was becoming interesting"—we should say, when completed.

† In reviewing these experiments, the *Magazine of Popular Science* says, "It is scarcely credible, but the temperature of the water in the boiler beneath the steam was not thought sufficiently important to be noted." To shew that the reviewer could not have read the article under review, we make from it the extracts in regard to the very point which he asserts (implies) was neglected. "To measure the temperature thus acquired by the steam, as well as that of the water below it, thermometers were placed in the iron tubes already described; the mercury was removed from the tubes, except enough to cover the bulbs of the thermometers, so that the temperatures shown by them might be, as nearly as possible, that of the steam by which the shorter tube was surrounded, and of the water into which the longer tube dipped."—*Report*, part i., p. 19. "The temperature of the thermometers in the water and steam were noticed both before and after the injection."—*Report*, part i., p. 20. "In the last day of trial the heat of the top of the boiler was so great and so long sustained that the thermometer in the water became, for reasons which will be stated, comparatively useless as an indicator of the temperature of the water."—*Report*, p. 20. It appears clearly, from this article, which we have read, that, not prejudging the results of experiment, the Com-

The examination of the circumstances which vary the quantity of steam produced by heated metals, was so fully gone into in the experiments of the Committee, and is so replete with numerical details, that we cannot do it justice in our limited space for criticism. We shall therefore barely state how these circumstances were varied, and, referring our readers to the *Report* for all except the principal numbers, give the conclusions drawn by the Committee in their own words. The experiments were made, first, by introducing drops of water into bowls of iron and copper with different states of surface, of different thicknesses, and heated to different temperatures; then different quantities of water, up to that of the entire capacity of the heated vessels, under similar variations, and with the additional one of variation in the means of communicating heat. The practical question immediately in view was to determine at what temperature of a metal, water, thrown upon it in a limited quantity, will be most rapidly turned into steam. Taking into consideration, of course, whether it is, or is not, supplied with heat.

"From the foregoing details may be deduced the following general conclusions, which will be found of practical importance.

"1st. The vaporizing power of copper when supplied with heat, by a bad conductor or circulator, such as oil, increases with great regularity as the temperature increases, up to a certain point, the water being supposed thrown upon the copper surface, in small quantities. Copper flues, heated by air passing through them, would be in this condition if left bare of water, and then suddenly wet. This holds with copper 1-16th of an inch thick, without indication that a limit will be attained by a much more considerable thickness. The temperature at which the metal will have the greatest vaporizing power, is about 570° Fah. or about 230° below redness, according to Daniell.

"The law of vaporization of small quantities of water, by a given thickness of copper, is represented with singular closeness by an ellipse, of which the temperatures represent the abscissæ, and the times of vaporization the difference between a constant quantity and the ordinates.

"2nd. The same power in thin iron, .04 (7-32nds) inch thick, increased regularly, and was at a maximum, probably, at 510°. With thicker metal the power increases more rapidly at the lower temperatures, and varies very little, comparatively, above 380°, with thicknesses exceeding  $\frac{1}{4}$ th, and less than  $\frac{1}{4}$ th of an inch; attaining a maximum at about 507° Fah. when the quantities are small; rising to 550°, and much above, as the quantity of water is increased relatively to the surface of the metal which is exposed. Quadrupling the quantity of water, the entire amount being still small, nearly tripled the time of vaporization at that maximum.

"3d. When copper of 1-16th of an inch in thickness, was supplied with

mittee omitted no datum which might be of importance; that they experimented several times and with the same results, except that, on the last day of trial, they were able to heat the steam more highly than on former days; and that a momentary decrease of elasticity from the injection of water into the hot steam being always the result, the temperature of the water from which the steam was raised was not an element required in the general solution of the problem as attempted: and thus they were enabled to omit the tables of results when the temperature of the water was correctly ascertained, and give us only the results of that day's trial in which they had pushed the experiment furthest. We are at a loss which most to value—the scientific knowledge or the candour of the reviewer.



heat by melted tin, a worse conductor, and having a lower specific heat than copper itself, the time of vaporization, in a spherical bowl, of quantities varying from 1-16th to  $\frac{1}{2}$  of the entire capacity of the bowl, increased but three-fold, and the temperature of greatest evaporation was raised but  $56^{\circ}$ , or from  $470^{\circ}$  to  $526^{\circ}$ . When the bowl had half of the portion which was exposed to heat filled, the weight of the water was about one and one-tenth of that of the metal.

"4th. The times of vaporization of different quantities of water, varying from 1-16th of an ounce to 2 ounces, in an iron bowl  $\frac{1}{4}$ th of an inch thick, and supplied with heat by the tin bath, were sensibly, as the square roots of the quantities, at the temperatures of maximum vaporization for each quantity.

"These temperatures were raised from about  $460^{\circ}$  to  $600^{\circ}$ , by increasing the weight of water about sixteen times, indicating that considerable quantities of water, thrown upon heated metal, will be most rapidly vaporized when the metal is at least  $200^{\circ}$  below a red heat.

"5th. While a red heat, visible in daylight, given to a metal, even when very thick, and supplied by heat from a glowing charcoal fire, does not prevent water, when thrown in considerable quantities, from cooling it down so as to vaporize the water very rapidly, it is much above the temperature at which the water thrown upon the metal will be most rapidly evaporated. Thus one ounce of water was vaporized in 13 seconds, at about  $550^{\circ}$ , in a wrought iron bowl  $\frac{1}{4}$  of an inch thick, and required 115 seconds to vaporize in a cast iron bowl  $\frac{1}{2}$  an inch thick, at a red heat. Four ounces in the latter bowl vaporized in about 300 seconds, the bowl being red hot when it was introduced; and two ounces vaporized in 34 seconds at  $600^{\circ}$  Fah.

"6th. The temperature of greatest vaporization, with a given thickness of metal, is lower in copper than in iron, the repulsive force being developed at a lower temperature. With equal thicknesses of iron and copper, the vaporizing power of the latter metal, at its maximum, was, with the oil bath, one third greater than that of the former, and with the tin bath the power of copper .07 of an inch thick, was equal, nearly, to that of iron,  $\frac{1}{4}$  of an inch thick, each being taken at its maximum of vaporization, for the different quantities of fluid employed. As the maxima for the iron are higher than those for the copper, the advantage will be still greater in favour of copper when the two metals are at equal temperatures.

"7th. The general effect of roughness of surface is to raise the temperature at which the maximum vaporization occurs, and to diminish the time of vaporization of a given quantity of water at an assumed temperature below the maximum.

"8th. Though it has been shown that water thrown upon red hot metal is adequate to produce explosive steam, even when it does not cool the metal down to the temperature of most rapid vaporization, it is not the less true that metal more than two hundred degrees below a red heat in the dark, is in the condition to produce even a more rapid vaporization of water thrown upon it than when red hot.

These experiments show why steam is rapidly produced by red hot metal, notwithstanding the great repulsion between the heated metal and the water: for the metal requires to be cooled but two hundred degrees below redness to reach the point of greatest vaporization.

The deductions as to the danger resulting from water obtaining access to highly heated metal within a boiler, are supported by a reference to two violent explosions, in one of which (on board of the *Grampus* steamer) six cylindrical boilers exploded simultaneously. The engineer had discovered, just before the explosion, that the boil-

ers contained very little water, and had suddenly thrown in a plentiful supply.

Doubts as to the development of steam by heated metal have led to the supposition that water is decomposed in an unduly heated boiler, giving rise to the production of hydrogen gas.\* We have always considered the attempts to explain explosions in this way as entire failures, from the impossibility of furnishing free oxygen to the hydrogen within the boiler to produce an explosion. The Committee whose labours are under discussion have made an elaborate set of experiments, to ascertain if water is decomposed, as has been assumed, when thrown into a red hot boiler. They find that no such decomposition takes place, and thus remove the very foundation of the hypothesis. They admit that carburetted hydrogen does, no doubt, exist at times in a boiler, in greater or less quantities, from the decomposition of oil or of vegetable substances introduced to stop leaks or to prevent deposits; but consider that there is no warrant for the idea that this gas can accumulate and mix with air within a boiler, so as to become a source of danger.

They then consider some cases of explosions which have been assumed as produced by hydrogen, particularly one which occurred at Pittsburgh in the United States. A cylindrical boiler was thrown up into the air, and a stream of fire described as issuing from it, by an eye witness of the explosion. This observation they explain by the optical phenomenon always occurring when luminous bodies are viewed in rapid motion.

Having proved that danger results from heated metal within a boiler, and disposed of various hypotheses connected with this fact of the subject, the Committee proceed to examine the probable causes which may lead to this source of danger, and the remedies which have been suggested to meet them.

The causes examined are: first, a deficient supply of water within a boiler; second, the existence of deposits from the water used to supply the boiler, or from other sources; third, in the particular arrangement of contiguous and communicating boilers on board of steam boats, by the deck of the boat being inclined to the horizon.

In all these cases it is necessary to shew, not merely that heated metal will result, but that water can get access to it; otherwise no dangerous effects follow. In the first case, besides the ordinary circumstances which suggest themselves, such as the introduction of water by a hand pump, the removal of an obstacle from the forcing pump which supplies the boiler with water, &c., a less obvious train of circumstances has been assumed as operative. When water is suddenly relieved from pressure, this hypothesis asserts that it foams up, and

\* This, with other errors which these *Reports* would have explained, if circulated in a popular form, appears in the evidence before the coroner's inquest in the matter of the late explosion at Hull.

that the foam being thrown upon the hot iron, is instantly vaporized. If this be true there are cases in which the opening of a safety valve may be a source of danger instead of one of safety! And this result was actually found experimentally to be true by M. M. Tabareau and Rey, of Lyons. But the fact of this foaming is also interesting as affecting the indications of the gauge-cocks and floats, commonly used to show the level of the water in a boiler. It must be especially effective in a small high pressure boiler.

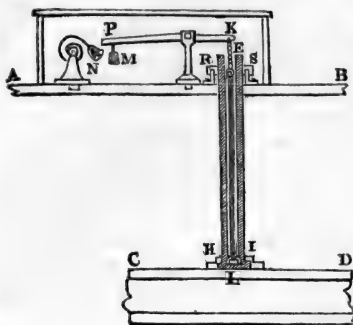
The Committee found, by experiment, that when water boiling under pressure is relieved from that pressure a foaming commences, near the point at which the relief is given, extending throughout the fluid. That this is greater as the opening made is greater, the relief more sudden, and the previous pressure greater. In one of the experiments indications of water were found by a gauge-cock two inches above the true level of the water in the small experimental boiler, these gauge-cocks being at the time open.

The glass gauge-tube used in our locomotive engines they found not to be affected by this foaming, until it reached the top of the tube. They recommend its use strongly, and propose to substitute green glass in high pressure boilers, for the white glass which erodes under the action of high steam.

It is obviously impossible to determine, as a general phenomenon, whether the steam produced by the projection of foam upon the heated sides of the boiler, produces more steam than that which escapes through the opening causing the foaming. It depends upon circumstances liable to vary in every case. This view the Committee take of the subject. They refer to the experiments of M. Arago, at Paris, made upon boilers not unduly heated, in which the mercury gauge always fell on making an opening from the boiler; to their own experiments on a boiler of which the sides were heated when the same result followed; and to those of M. M. Tabareau and Rey, when the boiler was surrounded by a charcoal fire, and when the reverse always took place, the pressure being increased by making an opening. It must be admitted then, that with a boiler presenting a great extent of highly heated surface upon which foam may be thrown, the making of an opening may be attended with danger. Indeed the successive explosions, recorded by Mr. John Taylor to have occurred in connected boilers in the Polgooth mines, do not admit a contrary supposition, for the second boiler had just had an opening of large size made by the explosion of the first, with which it had been in connection.

To avoid the source of danger resulting from the presence of heated metal, it is necessary to have some means of ascertaining the temperature of those parts of a boiler which are most liable to become overheated, so as to give notice before they reach a temperature at which danger would result. The Committee discuss various inventions which have been brought before them for this purpose, and give the experiments made upon one proposed by their chairman.

These experiments, which were favourable, were made upon the apparatus shown in the annexed figure.



A B is a section through the top of a boiler; C D is the flue, or fire-place, to which the tube R L is supposed to be fastened at the bottom, the flue closing the tube. The lower part, H I, of the tube contains a small quantity of fusible metal, by which a stem, L K, is soldered, as it were, to the flue. The weight, M, upon the lever, P K, tends to draw the stem, K L, upwards, and, when the fusible metal is softened, will actually disengage the stem.

The weight, M, descending, rings the bell, N, giving notice that the proper limit of temperature has been reached. If by throwing cold water into the boiler, which at this temperature may be done without danger, or by other appropriate means, the temperature of the flue is reduced, the stem, K L, having previously put in its place, is soldered again to the flue, and the weight, M, being applied to the lever at P, the apparatus is ready for action.\*

The second cause assigned for the undue heating of parts of a boiler is the accumulation of sedimentary matter upon them. To this the boilers of steam boats plying on the western rivers of the United States are stated to be particularly exposed, those waters containing both mud and calcareous matter in great abundance. The facts brought together, from different quarters, in relation to sediments from salt water, from river water, and spring water, are interesting. They are examined with a view to the application of various remedies which have been proposed to the Committee, none of which, however, are considered as proper substitutes for frequent

\* On this apparatus, the *Magazine of Popular Science* has these remarks: "No doubt! there can be no doubt of this effect occurring, the most perfect fluidity may be obtained; but *cui bono?*—for what purpose?" We can scarcely understand how an individual should be so dull, the mode of action seems level to so mean a capacity. Perhaps our cotemporary was not aware that letting off steam was not always the "true remedy" to the danger of an overheated boiler. Perhaps he did not see that the same power which rings a bell, will equally open a valve or turn a stop-cock, if required, and that if a large opening is not preferred to be made it is not without cause. Here is his note on the subject; it may be taken as a specimen of his fairness and of his style: "We cannot help thinking that the following parallel case of a "true remedy" would be prescribed by the Sub-committee, if the question were presented to them. Suppose a man has a box which can only be opened by a certain crooked sixpence; what is the best way of being sure to have the sixpence always at hand when wanted? *Answer.*—Shut it up in the box! *enclose the metal in a case!*"

cleansing of the boiler. This is impracticable in the connected boilers before referred to, when used on board of steamers; and the fact may serve to explain the frequent explosions which occur in the United States, on the Mississippi river. It is to this kind of boiler that the third mode assigned by which unduly heated metal may be produced is applicable. This form is condemned by the Committee, and is not in use, we believe, for our steamers. We wish they may be successful in preventing the further extension of its use in their own country. When the deck of the steam vessel is inclined by passengers moving to one side, by wind, &c., the upper boilers are more or less emptied of water; they are thus exposed to the fire, without the protection of a covering of water, and become unduly heated. The water which is forced into them on the return of the boat to its proper position is thrown upon the heated metal and flashed into steam.

For a connected view of the conclusions drawn from the discussion of this part of the subject we would refer to the *Report* itself. One of the articles in which these are exhibited contains a table of alloys applicable to boilers working at pressures from one to thirteen atmospheres, and is deduced from experiments by the Committee, in which much labour must have been encountered, and in the course of which some curious properties of alloys appear to have been developed. The temperatures given in this table as corresponding to the assumed pressures are from data drawn up by the Committee from their own experiments. This differs considerably from that lately given by a Committee of the French Institute. The results, however, are the mean of many experiments, in which the data appear to have been calculated with care. The pressures increase more rapidly with the temperatures than in the table of the French commissioners, agreeing more nearly with the experimental results of Dr. Ure and Professor Robison than with those of other experimenters.

3rd. *Explosion may arise from defects in the construction of the boiler or of its appendages.*

Under this head are discussed the influence of the form, material, and manufacture of a boiler. The waggon boiler is considered as applicable only when low steam is used. Boilers with interior flues commonly give way by blowing off the heads of the boiler, or by the flattening of the flues. Those in which the flues pass through both heads of the boiler are, *ceteris paribus*, the most safe, while those in which the flue passes through the steam chamber and top of the boiler are liable to accident. Weakness arising from irregular forms, from the cutting out of the metal by rivets, from the wearing of the junctures of the plates when exposed to the fire, &c., are discussed. Frequent proving of the boiler is recommended, while in use, as the only means of being certain of its retaining the strength shewn in the preliminary proofs before its use.

The Committee consider it important that several valves should be placed in the induction and eduction pipes of the forcing pump which supplies the boiler with water, in order to prevent the derangement

of the pump by sedimentary matter. To ascertain its action at any time, they recommend a small stop-cock in the supply pipe, similar to that used in locomotive boilers.

4th. *The carelessness or ignorance of those entrusted with the management of the steam engine* may produce, and have produced, the most disastrous accidents. To guard against these the Committee have proposed certain provisions in their project of a law for regulating steam navigation and the steam engine, and to which we must refer for details.

5th. *Cases of collapse from a partial vacuum within a boiler or its flues.*

The ordinary air-valve is commonly provided, to prevent danger from this source by the condensation of the steam. A singular case, described, by Mr. John Taylor, as having occurred at the Mold Mines, is discussed by the Committee. It appears that an explosive mixture of coal-gas and air was formed in the flues on the closing of a damper, and became ignited. A burst of flame was seen from the mouth of the flue at the moment of explosion. The boiler was one of those with interior flues. The precaution which suggests itself to prevent the possibility of such an accident is an obvious one.

6th. Having closed the subject of the means of preventing explosions, the Committee consider briefly *whether it is possible to provide protection against them when they occur.*

The means proposed are by carrying passengers in a boat separate from the engine, or by placing the boilers on the "*guards*" of the boat, and separating them by a suitable bulwark. The first of these plans, it is stated, has been tried in America, and abandoned on account of the impediment to speed. The second, the Committee are of opinion, might be rendered effectual, but they prefer strongly attempts to render the boiler safe to those intended to ward off the effects of its explosion. These means, as far as have occurred to them, are embodied in the project of a law, from the adoption of which we should anticipate much good would result, and which, with the *Reports*, we recommend to the perusal of our readers.

*An Address delivered at the Opening of the Worcestershire Museum, by Charles Hastings, M.D., F.G.S. ; to which is subjoined the First Fasciculus of the Statistical and General History of Worcestershire—Parish of Great Witley—by the Rev. Thomas Pearson, Rector of Great Witley, and the Rev. John Pearson. pp. 97, 800. London: Sherwood—Worcester: Deighton.*

FOREMOST among the Natural History societies that, like brilliant syngenesious flowers opening before the unclouded sun, met the bright beams of the sun of science, shone forth the Natural History Society of Worcestershire. Its founders seemed men endowed with enthusiastic ardour, its patrons appeared liberal and judi-

cious, its friends and lecturers were hailed as men of talent, the world applauded, and even veteran philosophers extended the right hand of fellowship to the new society that thus vigorous in its early growth, seemed destined to overshadow the land. Numerous other societies, following this spirit-stirring example, have since arisen on all sides, and the Worcestershire Society has either not kept up its original impetus, has lost some of its early friends, or at any rate has not been heard of so frequently as it was wont to be. Perhaps this is not to be altogether wondered at by any one conversant in the frailties of human nature. Novelty, like beauty, is evanescent. The best experimenters will occasionally fail, and wet weather damps the efforts of the cleverest electrician: so that supposing no collision of opinions, or "little enmities and dissensions,"\* to arise, the warmest admirers of the Society could scarcely suppose its advancing career would never meet with a check. As such, however, would seem to be almost the case from the publication which has now appeared, it behoves us, in examining the productions of a society now of some years standing, to assume a more rigid position than we should have considered it fair to have done at the outset of the Society. This is the first publication that comes before the world as a specimen of what the Society has done, and as a pledge of what it is to do: for though other publications have appeared from individuals, they have not assumed the form of the transactions of a body, as this appears to do, since Dr. Hastings says, in reference to the first fasciculus of the History of Worcestershire, here appended to his *Address*, and containing the parish of Great Witley, by the Revs. Thomas and John Pearson, that "there is every reason to believe that the able manner in which the local history of that parish has been executed, will secure for it an extensive circulation throughout this intelligent county; in which event the Society will be justified in proceeding in their praiseworthy undertaking, and will gradually collect together a correct history of each parish in the county, so as to present an invaluable body of information, which may prove of the utmost importance to the traveller, the antiquary, the man of science, and the naturalist."† So that from this it appears, in fact, that the Society is proceeding *seriatim* to make a Topographical Dictionary of Worcestershire. We might, perhaps, notwithstanding the imprimature of the amiable physician, almost doubt the legality and propriety of such a step as this; but if it must be so, and the Society is content to rest its claims to distinction upon this undertaking, it is not for us to complain. We would, however, in perfect good feeling, suggest the scriptural injunction of the cost being first counted, as we are told there are one hundred and fifty-two parishes in the county, which we presume will require a considerable number of fasciculi, and a patience that must endure unto the end if the work is to be completed.

\* *Address*, p. 56.

† Page 11.

With regard to the *Address* of Dr. Hastings, we consider it to have been exceedingly well adapted to the occasion on which it was delivered; and it is, perhaps, almost superfluous to say that, coming from a man so well known and esteemed by his "medical friends," its style is elegant and its sentiments unexceptionable. It seems especially to call for the active co-operation of his brethren in the healing art, and cursorily traces the progress of Natural History, or rather of the writers on Zoology, Botany, &c, from Solomon and Aristotle down to Cuvier and Buckland. All receive in turn their due modicum of praise for their respective labours, and this *Address* may be considered to be a good recapitulation of what has been done by others in the wide field of scientific inquiry. In one respect, however, we wish the learned physician had been more explicit, and have stated distinctly what has been effected by the members of the Society he then represented. It seems somewhat remarkable that, on this point, he is entirely silent, and while glorying in "the splendid edifice" which "promises to stand for ages," he makes no mention of any researches which might be calculated to reflect lustre upon the building in which he stood, but rather to rest satisfied in the "memorial of those exertions by which so great a work has been accomplished." But we must be permitted, however fastidious it may seem, to take a somewhat different view. We always hoped the formation of Natural History societies would rouse the energies of latent genius, and bring forth local talents that wanted only a place to stand on to exhibit useful effort, and quiet, unostentatious, but laborious and useful, research. We expected that such institutions would materially add to the stock of our knowledge. A splendid building is, in our view, but a secondary consideration, if its grandeur extinguishes the effort and spirit that distinguished its members when a united few, with incommensurable premises and insufficient means. It is not always the holder of the patent rod and morocco book of gorgeous flies that fills his fishing-basket; the humble urchin, intent upon his purpose, is often more successful with his crooked pin. We wish, therefore, that while bricks and mortar have the praise to which they are entitled, those researches should not be forgotten which can alone do honour to societies, when perhaps gorgeous buildings are converted to other purposes than their founders intended them. As Dr. Hastings has nowhere stated in this *Address* what has been undertaken or accomplished by any members of the Society, save and except the fasciculus of the History of Worcestershire appended thereto, we now proceed to direct our attention to this production.

That even a remote and isolated rural parish may be most delightfully treated of by the natural historian, no one who has ever glanced over one of the numerous editions of White's *Selborne* will for a moment deny. But then it is not the topographer or the statistic who can satisfactorily perform this task. Tables may be constructed and compiled from documents in a week, a parish may be surveyed in a month, but the natural history of a tree, if its minute



details be illustrated, requires many years of patient investigation. We regret, therefore, to be obliged to remark that the observations respecting the Natural History of Great Witley are very meagre. For this we can hardly blame the reverend gentlemen who undertook the *topography* of Witley, but surely the council, who delegated to them this task, should have associated with them some zealous collector, who would have filled up the hiatus they have left. For, although anxious to avoid censure, what will, what *can*, be said to such a paragraph as the following, issuing under the auspices of a *Natural History Society*? "It would be *useless* to enter upon the minute but spacious field of inquiry which the insect tribes present, as *we are not aware* that this parish can supply any novelty to gratify the curiosity of the entomological student."—p. 15. That the worthy and reverend authors of the fasciculus are not "aware" of any peculiar insect inhabiting Witley we admit, but that the inquiry would be "*useless*" we altogether deny. It might, perhaps, be a matter of curiosity to know if *Acherontiu atropos* be found in Witley or not, but it might be very useful to ascertain whether the Elm trees there are attacked by *Scolytus destructor*, and what insects are most injurious to the Oaks. Space forbids our suggesting other things, but we very much doubt if a week's actual investigation would not supply something "to gratify the curiosity of the entomological student." The Glowworm is, however, mentioned as abounding in a particular spot, and this incautious paragraph follows, which of course could not have been penned by a *practical entomologist*. "There is perhaps a *greater* distinction between the male and female of this class than can be *elsewhere found in the whole range of Zoology*. The male is a small dusky *Scarabæus*, without luminous power or other peculiarity." Now all this is decidedly wrong, as every entomologist knows, and we therefore again regret that an avowed publication of this Society should be below the usual high-water mark of scientific language in any respect. There are many insects, the sexes of which are more dissimilar and would be less easily recognized than even the Glowworm, as several of the *Mutillites*, and the apterous females of certain moths. Again, the Glowworm, is not a *Scarabæus* at all, and the male of the Glowworm certainly *has* two faintly luminous spots on its abdomen. The authors of the fasciculus give us a list of the migratory birds visiting Witley, in which they include the Grey Shrike, *Lanius excubitor*. They state that during the summer months this kind is invariably present in the parish, to the number of "perhaps a *dozen*!! No account, however, is given of the habits or nidification of the bird, and we almost fear some mistake, particularly as the more common *Lanius collurio* is altogether omitted. Surely, too, the Whin Chat (*Saxicola rubetra*), the Spring Oatmeal (*Budytes verna*), the Tree Redstart (*Phœnicura albifrons*), and the Fern Nightjar (*Vociferator Europæus*), must visit Witley, yet they are altogether omitted by the reverend writers.

Now, as these are migratory birds of general occurrence, we cannot understand on what principle they are omitted, unless not observed, in which case an explicit statement should have been made that those birds of general occurrence had never been perceived in the parish of Witley. A local catalogue of the birds frequenting any district is very useful if all the known species are included; but if merely a selection is made, without any elucidatory remarks, the reader is left totally in the dark as to whether any birds omitted have been so treated purposely, or whether they do not really occur in the district.

Under the heads of Population, Parish Registers, Mortality, Longevity, Births, &c., the labours of the authors are judiciously succinct and to the purpose. Their account of the Hop-pickers whose annual migration passes through Witley, for the supply of the neighbouring parishes of Worcestershire and Herefordshire, is really pleasing, not generally known, and deserves unqualified praise. We subjoin the passage: "In the hop season, every child capable of plucking the hops stands to the crib. Neighbours, for the most part, are employed in picking the few plantations in this parish. Not so on the other side of the hills, where foreign aid is required: and it may not be uninteresting to state that, in a good hop season, two thousand strangers pass over Stourport Bridge, from Staffordshire, for the supply of the parishes, both in Worcestershire and Herefordshire, situated within a few miles of Great Witley. Besides the Stourport Bridge, many strangers pass over Bewdley and other bridges which cross the Severn. The inducement to these strangers to leave their home is principally the apples, which they consume largely whilst in the country, and carry away, upon their return home, as many as they can walk under. Taking the low average of two thousand strangers in a good season, and the still lower average of half a pot of apples to each person, the quantity consumed and carried away by such strangers would be one thousand pots, or twenty-five waggon loads, which, being taken at three shillings a pot, or six pounds the load, would produce no less a sum than £150. The hop season is one of joyous excitement and of pleasurable hope; and where the plant is luxuriant in its growth, and clustered with loaded tendrils hanging in graceful curves, with groups of gatherers appearing at intervals between the long vistas, carolling forth, with gay and artless glee, their national songs, the scene affords a picturesque treat, and excites a corresponding sentiment of pleasurable feelings." This is the bright side of the picture, and it is so good that we will not spoil it by hinting at another view that, we fear, might be taken. At all events, we warn strangers who might be tempted by the pastoral beauties pourtrayed in this vivid scene not, in their poetical raptures, to approach too near *the crib*.

We have examined this publication with detailed attention; and if the fasciculus had appeared to us a model, in all respects, for other

Natural History Societies, we would have cheerfully so recommended it. We have pointed out its defects unreservedly, because it is absolutely necessary that the votaries of Natural History in the present day should fully understand that their observations, to be duly appreciated, must keep pace with the progress of modern science, and that nothing inadequate or imperfect can be now regarded, however praiseworthy the author's intentions.

*Sacred Philosophy of the Seasons*; illustrating the Perfections of God in the Phenomena of the Year. By the Rev. Henry Duncan, D.D. Vol. III. Summer. Edinburgh: W. Oliphant and Son. London: Hamilton, Adams, and Co. 1837.

IN our last number we were compelled to content ourselves with a brief notice of the second volume of Dr. Duncan's excellent work. We now propose in some way to atone to the philosophic author by a more detailed review of his treatise on Summer. We observe throughout the varied subjects that have fallen under the scope of his undertaking, the same comprehensive and devout spirit which we had occasion to commend in our former critique.

The first chapter very naturally consists of a general account of the summer season, which is represented as the perfection of the year. The increased heat of the season, and the internal heat of the earth are next treated of. From the latter chapter we extract as follows:—

"The fact, then, seems to be established, that there is a vast region of excessive heat in the centre of the earth; and that the crust of the globe is rent internally into very extensive fissures, along which that formidable agent approaches nearer the surface, and through which it finds occasional or permanent vents. This being proved, seems to open to us, not only one of the natural causes of the previous revolutions on the surface of our planet, but a source of future disruption and ruin. The 'more sure word of prophecy' informs us, that the time will come when the elements shall be dissolved with fervent heat, and the earth and all that is therein shall be burned up: and it is satisfactory to observe that geological indications render this catastrophe, not only possible, but probable. Let it only be conceived that the safety-valve, by which the superabundant heat generated internally is at present thrown off, were, by some convulsion, to be stopped up, or that some other deranging cause were to occur, which should destroy the equilibrium at present subsisting between the great central fire and the shell in which it is inclosed, and an explosion would take place like the bursting of a bomb; or, at all events, a force would be exerted which might altogether derange the present system of things, and set the world in a blaze. The powers which sustain the great planetary system are equally balanced, and, notwithstanding the existence of a resisting medium, may, as to all practical results, be considered stable; but it is not so with the materials of our own globe. These have already undergone numerous disruptions; and there is one other catastrophe still in reserve for them. We see the elements of that catastrophe in existing phenomena, and when we look to the announcements of Scripture, the event, which might almost be anticipated, is authoritatively foretold."—p. 22.

Increased light and electricity are then discussed. The latter is,

of course, a subject of the highest interest. After briefly explaining the uses of electricity, so far as these are known, our author observes—

“ Another property which has been said to belong to the principle of electricity, is the assistance which it affords to the processes of vegetation. While these processes proceed, it is ascertained, by some late experiments, that there is a constant circulation of this fluid, if it deserves that name, between plants and the atmosphere; and there is, therefore, reason to believe that the circulation is essential to the growth and health of the former. Various contradictory experiments, however, have been made on this subject, producing conflicting theories, and not ending in any very satisfactory result. The Abbé Nolle and Bertholon both made experiments which seemed to prove that the artificial application of electricity considerably accelerated the vegetable process, and rendered it more vigorous; and the latter took so strong a view of this subject, that he seriously proposed the erection of what he named *electro-vegetometers*, or thunder rods, for bringing down the electricity of the atmosphere to the earth, for the purpose of fertilizing the soil. After describing his plans, he thus expresses himself:—‘ By these means we shall have an excellent vegetable manure, or nourishment, brought down, as it were from heaven, and that, too, at so easy an expense; for, after the construction of this instrument, it will cost nothing to maintain it. It will be, moreover, the most efficacious you can employ; no other substance being so active, penetrating, or conducive to the germination, growth, multiplication, or reproduction of vegetables.’ The Abbé’s views, however, appear to be visionary, and the experience of several other philosophers is far from confirming the effects above mentioned; so that nothing more can be positively affirmed, from actual experiment, than the existence of a circulation of electricity in plants during vegetation. Further experiments are required to elucidate this very interesting subject.”—p. 30.

In a work containing so much philosophical research as the present, we cannot of course be expected to give a detailed analysis of the whole: we are, indeed, unable to spare either time or space to mention even the heads of the various chapters; but will proceed to make a few more extracts, which we will intersperse, if convenient or necessary, with observations of our own. The ensuing paragraph is from the chapter on vegetable fixed oils:—

“ The *Sesamum*, or oil-plant of the east, is indigenous in the island of Ceylon and on the Malabar coast. It is an annual, growing about two feet high, and producing seeds of the size of those of mustard. It is grown universally throughout Asia and in some parts of Africa, where the whole seed is valued, not merely for its oil, but as an article of food. The oil is abundant, nine pounds of seed yielding two quarts of this substance. It is perfectly sweet, and is used for the purposes of olive oil, while it has the great advantage of not becoming rancid, though kept for years. From the kernels of walnuts, hazel-nuts, and beech-masts, and from the seeds of the poppy, oils are extracted, which are much esteemed by varnishers, on account of their transparency. The latter is also extensively used in place of olive oil. The cocoa-nut and some species of palm likewise yield an abundant and useful oil well known in this country, the latter being chiefly used in the manufacture of a certain kind of soap, and the former being in very general use. The chief defect of the oil extracted from the cocoa-nut was its congealing at the ordinary temperature of the atmosphere in England. Recently, however, a discovery has been made of a method of separating the concrete matter from the liquid part of the oil, by which means a pale, limpid, tasteless fluid is

produced, possessing the property of combustibility in an equal degree with the best sperm oil, while the solid unctuous substance is applicable to the manufacture of candles, and to other uses in which fatty matter is employed. This discovery will probably be of considerable importance to the inhabitants of Ceylon, where the cocoa-nut tree is cultivated in such abundance. The utility of its oil adds to the valuable properties of this wonderful tree."—p. 122.

Dr. Duncan devotes a section to the consideration of vegetable life in the polar regions, where the plants are few in number and stunted in growth. The cryptogamic plants are, however, tolerably abundant even in those desolate regions. These countries are still by no means wanting in peculiarities interesting to the botanist:—

"These bleak regions enjoy a precious boon in the plants which act as an antidote to scurvy, and which defy the most severe cold of the arctic zone. The *Cochlearia*, a thick-tufted juicy plant, of extreme fecundity, is emphatically called *scurvy-grass*; and different species of sorrel were found, by Captain Parry, flourishing under the snow, at the very furthest limit of vegetation."—p. 133.

Some account is then given of a curious production supposed to be a plant, and named *Protocæcus nivalis*, which has somewhat the appearance of red snow, for which, indeed, it was mistaken by the northern voyagers. It is rather remarkable that this plant has also been found in Scotland and in the Alpine countries of Europe. We have called this substance a plant, since it has been supposed to consist of an assemblage of minute *Algæ*, but the fact is not well ascertained.

Our author devotes a chapter to the intellectual and moral faculties of man, but here we must beg to be excused from following him. As he is unacquainted with the science of Phrenology, it is not surprising that he should have treated this subject less happily and satisfactorily than many others. These two chapters might, we think, very advantageously have been omitted, as they involve nothing but speculation and hypothesis, where all might have been as clear and precise as a problem in mathematics.

We have only been able to select, here and there, a few paragraphs from the volume, but we trust enough has been said to point out the excellences, both in plan and execution, of the greater part of this work. It is, in fact, a series of singular merit, and gives us a highly favourable opinion of the talents of the reverend author. We hope and believe it will meet the reception it so richly deserves.

*An Analysis of the British Ferns and their Allies*, with Copper-plate Engravings of every Species and Variety. By George W. Francis. London: Simpkin & Co. 1837. pp. 68.

OUR botanical readers will be well able to appreciate the value of a synopsis of British Ferns, and therefore we shall only say that we are perfectly satisfied with Mr. Francis's *Analysis*. The author

has been assisted in his undertaking by Mr. H. C. Watson, Mr. W. Wilson, Mr. W. A. Leighton, Dr. Murray, Mr. W. Pamlin, Mr. Beevis, Mr. Castles, and the Rev. W. T. Bree, and we must consider the book a most valuable and acceptable addition to this department of our native plants. With this volume we have also received an excellent tabular *Catalogue of British Flowering Plants and Ferns*, by the same author. We are by no means surprised to find that it has reached its third edition.

*A Synopsis of the Birds of Australia and the adjacent Islands.* By John Gould, F.L.S., &c. Part I., coloured or plain. January, 1837. London: Published by the Author, 20, Broad-street, Golden-square.

NUMEROUS and important as have been the ornithological works of Mr. Gould, we are glad to find him persevering in his course of usefulness; and perhaps the present publication, of which the part on our table is the commencement, will yield in value and excellence to none of his other undertakings. The scientific ornithologist must be especially obliged to him for illustrating the birds of a country in which, comparatively, so little has hitherto been done in the same line. Lewin's *Birds of New Holland* is valuable as far as it goes, but is extremely deficient as regards the number of species it describes, and, with the exception of a memoir by Mr. Vigers and Dr. Horsfield, in the fifteenth volume of the *Linnean Transactions*, that is the only work on the subject with which we are acquainted. The field Mr. Gould has now chosen for his labours is one of great interest and importance in an ornithological point of view, and abounds in forms remarkable for their beauty and interest. In the present *Synopsis* we have a concise and masterly description of each species, with synonyms, &c.; and a drawing of the head is, in every case, given, with occasionally the wings and other parts supplied in outline. These plates—which may be had either coloured or plain, according to the taste or resources of the student—are satisfactory in every respect, and are, unquestionably, the best of the kind we have seen.

We think it would not have been amiss to have supplied the English names of the birds described. To those who have not enjoyed the “benefits of a sound classical education”—and the number of these is yearly increasing—such names as *Ocypterus albovittatus*, *Neomorpha crassirostris*, &c., however familiar to the ears of the initiated, must appear strangely uncouth to those “honest folk” who are debarred the advantages of college instruction. We cannot agree with the naturalists who wish to exclude Latin names altogether any more than we are disposed to “chime in” with those who declare the English designations to be useless. On the contrary, we are inclined to compromise the matter, and unite the two languages so as to suit all tastes, and of course this plan cannot fail to facilitate the study. Indeed, the method we advocate is so ge-

nerally agreed on that we are only surprised to find our author departing from it.

The *Synopsis of the Birds of Australia* is to extend to six or eight quarterly parts, and the work will, we doubt not, be supported in the manner its merits so richly deserve.

*The Naturalist's Library.* Conducted by Sir W. Jardine, Bart. Ornithology, Vol. VII.—*Birds of Western Africa.* By W. Swainson, Esq., A.C.G., &c. Edinburgh: Lizars—London: Highley. 1837.

THIS, too, considering the limits which must necessarily be attended to in this series, and the popular complexion of the undertaking, is a work of no small value. The Ornithology of Western Africa has scarcely received a greater share of attention than that of Australia, though equally deserving the investigation of the naturalist. We are glad to find Mr. Swainson intends to give us another volume on the same subject, and feel confident that it will be executed in the same careful and philosophic manner so conspicuous in all the writings of that gentleman. Above thirty species are figured—not a few of which are new—the engravings being by Lizars, from drawings by the author. These illustrations are, at least, equal to those in any of the preceding volumes. Mr. Swainson's introduction is so interesting and beautiful that had we not elsewhere (*The Naturalist*, vol. ii., p. 109) freely extracted from it, we should have presented our readers with various extracts from it; but we prefer our readers to peruse the whole volume. This book opens with a plate and remarkably interesting memoir of Bruce, the African traveller, by Andrew Crichton, Esq., author of the *History of Arabia*.

## FINE ARTS.

### MUSIC.

*John Sebastian Bach's Grand Studies for the Organ.* Cramer & Co.

THE instrumental works of this greatest of all composers are now at length beginning to attract some portion of that attention and admiration which they so well deserve; but his vocal masterpieces are, by some unaccountable fatality, entirely unknown to the public at large, and even to a great majority of the professors of this country. At some future time we will, as far as in us lies, endeavour to dispel some portion of the cloud of ignorance and prejudice

which have so long obscured the name of this truly great man. At present we must content ourselves with quoting a passage from his life by Forkel, a work which cannot be too highly praised, as well for its dignified estimate of the art, as for its constant inculcation of whatever is greatest and noblest in that art :—

“ When an artist has produced a great number of works, which are all of the most varied kind, which are distinguished from those of all other composers of every age, and have in common an abundance of the most original ideas, and a most lively spirit which charms every one, whether connoisseur or not, there can hardly be room to ask whether such an artist was a great genius or not. The most fertile fancy ; the most inexhaustible invention ; the most acute and accurate judgment in the just application to every object of the rich flow of thoughts issuing from the imagination ; the most refined taste, which cannot endure a single arbitrary note, or which does not duly accord with the spirit of the whole ; the greatest ingenuity in the suitable use of the most delicate and unusual resources of the art ; and, lastly, the highest degree of talent in the execution—qualities in which not one, but all the powers of the soul, in the most intimate union, must act—these must be the characteristics of real genius, or there are none such : and he who cannot find these characteristics in the works of Bach, is either not acquainted with them (the works) at all, or else not sufficiently so. He who does not know them, cannot possibly have an opinion of them, or of the genius of their author ; and he who does not know them sufficiently, must consider that works of art, in proportion as they are great and perfect, require to be the more diligently studied to discover their real value in its full extent. *That butterfly spirit which flutters incessantly from flower to flower, without resting upon any, can do nothing here.*”

*Grand Duet, in three movements, for the Piano-forte or Organ.* By Samuel Wesley. London : J. Dean, 148, New Bond-street.

THIS duet is neither entirely fitted for the organ, nor for the piano-forte. The parts are often too straggling and detached to produce a good effect on the former, while the general character of the piece is too heavy and spiritless to be suitable to the latter instrument. The last movement, a fugue on two subjects, is decidedly the best of the whole, and would make a good organ piece played by itself, or with a short introduction ; but nothing that we can see in it at all justifies the title of the “English Sebastian Bach,” which one of his admirers has bestowed on its author. Mr. Wesley is a very respectable composer, but certainly no Sebastian Bach.

*Favourite Airs.* In two books ; selected from Cimarosa’s opera “*Il Matrimonio Segreto.*” Arranged for two Performers on the Piano-forte. By W. Watts. R. Mills, 140, New Bond-street.

WHEN an arrangement from a great work is in contemplation, what is the object which the arranger should propose to himself ? Certainly, if he has any respect for his author, to give the clearest and most adequate idea of the work from which he is arranging, in a manner consistent with the character and capabilities of the instrument to which he is adapting it. That Mr. Watts, however, is



not of our mind is but too evident from the duets before us, for stranger and more lamentable vagaries, and a more pitiable murdering of a fine work, it never fell to our lot to witness. To speak of the arrangement alone, compare the small portion of the first finale, which is here vouchsafed to us, with the admirable and elaborate arrangement of the same finale by Dr. Crotch. The slovenliness and want of effect in the former will be seen in striking contrast with the care and faithful rendering of the original which distinguish the latter. But what are we to say when we find the second finale (a piece of music, as well from its scientific arrangement as from its dramatic treatment, every way worthy of the *chef d'œuvre* it concludes) transformed, in the merciless hands of the arranger, into a *pot-pourri* of favourite airs! As if there were no composer better fitted for his purpose—no inventor of favourite airs ready made to his hand, without troubling him either to transpose or curtail—no composer who writes with especial eye to the edification of the young ladies, or none who never introduce into their compositions anything heavier than a waltz, or at most a *favourite air*! As long as there are such we would beg Mr. Watts to keep off his unhallowed hands from Cimarosa, and from all who have written for posterity.

*Six Grand Waltzes.* By Miss Mounsey. Clementi, Collard, & Collard, 26, Cheapside.

*The Erl King.* The poetry by Goethe, with an English translation by W. Bartholomew, Esq. The music by Miss Mounsey.—J. A. Novello, 69, Dean-street, Soho.

IN these waltzes Miss Mounsey has escaped the Strauss mania, which is beginning to make such great ravages, and has apparently taken Beethoven for her model, without, however, being in the slightest degree amenable to the charge of imitating, still less of copying, his phrases or ideas. They are beautiful, and sufficiently ornamented without being flippant, the usual besetting sin of compositions of this class; and being such they deserve the popularity they have by this time, doubtless, obtained.

*The Erl King* is a composition of a very superior order. The poetry presents considerable difficulties, not with regard to the language, but to the feelings and emotions to be depicted. Over these difficulties the fair composer has triumphed most completely. The introduction is admirable, and most successfully portrays the dark and stormy night in which the father is hiding with his "lovely boy." The fears of the child, the blandishments of the "*Erl King*," the horror of the father on discovering the terrible reality, are all depicted with a power, a truth, and, at the same time, a poetic feeling, which must be in the highest degree delightful to those who wish to see, in the cultivators of art, that earnest striving after ideal excellence, without which art degenerates into a mere idle and sensual gratification.

## EXTRACTS FROM FOREIGN JOURNALS.

## ZOOLOGY.

ON A NEW GROUP OF INSECTS OF THE FAMILY *Mantidæ*.—M. Duméril has communicated some observations on a new group of insects of the family of *Mantidæ*. The forms of the species belonging to this family are most singular; some resembling walking sticks, others appearing like green leaves fastened together, and walking thus united. Their head, abdomen, legs, &c., present the greatest varieties of shape, from which they have received names expressive of their remarkable contour, as *Spectres*, *Phasmes*, *Phyllis*, *Mantes* or *Diablos*, *Pregadious*. It is a new group of this family, named, by M. Duméril, *Anomides*, (*Anomidæ*), that M. Lefebvre has described. He has collected several species in Egypt. In a monograph on the subject, he gives an account of the organization of the two new genera, which he names, the one, *Eremiophilus*, because he has only met with it in deserts; the other, *Heteronutarsis*, on account of the tarsi, and especially the nails, being different in the posterior and anterior legs.—Another paper, by the same author, will describe the larva and perfect insect of a new species of *Clerus*, which he has found in a medullary substance with which the bottom of an insect-tin was covered, and which proceeded from the root of *Æschynomene paludosa*.

ON THE DEVELOPMENT OF THE EGGS OF *Planorbis*.—M. Jacquemin has communicated to the *Académie des Sciences* of Paris new details relative to the development of the eggs of *Planorbis*. He indicates, each day, the progress of this development, observes on the tenth day the first trace of the formation of the testicle, on the eleventh the pulsations of the heart, and on the thirteenth the action of deglutition. On the fourteenth day the hatching takes place; but pulmonary respiration only commences six or eight days afterwards.—*Echo du Monde Savant*.

## BOTANY.

ON TWO NEW SPECIES OF *Spitzelia*.—We have already more than once had occasion to speak of the works of M. Schultz, *Sur les Chicoracées*, (*Cichoraceæ*). In the first article we described the genus *Spitzelia*, Delile; and in the second we spoke of another species of the same genus, *Crepis radicata*, Sieber. Through the kindness of M. Ad. de Jussieu, the author has been enabled to add to this genus two other plants, *Picris lyrata*, Delile, and *Leontodon coronopifolium*, Desf. M. Schultz arranges the species of his new genus in two groups, and distinguishes them as follows:—

- I. *Scariositas acheniorum radii basin fere usque in pilos divisa*.
  1. *S. ægyptiaca*.—Acheniis disci breve rostratis.
  2. *S. Sieberi*.—Acheniis disci truncatis.
- II. *Scariositas acheniorum radii cupuliformis, ad medium tantum in pilos divisa*.
  3. *S. lyrata*.—Caule foliato subramoso (*Picris lyrata*, Del.)

4. *S. coronopifolia*.—Scapo simplici, foliis radicalibus brevior ( *Leontodon coronopifolium*, Desf. ! *Fidelia* ?, Schulz, 1834 ).

## GEOLOGY.

ON THE HEAD OF A FOSSIL CAMEL FOUND IN THE FREESTONE IN THE HIMALAYAS.—Up to this time, says M. de Blainville, those who have been most occupied in collecting all that has been done and published on the fossil remains of mammifera have never described any which have been ascertained to belong to the *Quadrupana*, or to the Camels in the ruminating order, animals, in fact, which seem to be confined within well-marked limits. It is true that Bojanus, having purchased of a merchant three molar teeth of a ruminating animal, which he was assured had been found in Siberia, with the teeth of a Mastodon, thought they belonged to a species of the Camel family, and formed accordingly, on account of some slight differences, a genus under the name of *Merycotherium*. It is also known that M. Marcel de Serres forwarded, some years ago, to Cuvier, the drawing of a portion of a femur, which he imagined to be that of a Camel; but, even supposing the other bones to have belonged to a Camel, it is not certain that they were really fossil. At present, it may be considered very doubtful whether they were fossil bones of a Camel. It is no longer the case that, when a skull is discovered nearly entire, it is impossible to refer it to the Dromedary or Camel with one hump, as is proved by the drawing M. de Blainville placed before the *Académie des Sciences Naturelles*, and by the extract from a letter of Mr. Henry Durand, an officer in the service of the East India Company, addressed, on the 14th of April last, to his brother, and which was transmitted to me by the latter. This skull was found in a very hard freestone, or sandstone, obtained, doubtless, like the building stone of India, along the lower Himalayas.

The Academy will perceive, continues M. de Blainville, by the lecture I shall have the honour of delivering, that in the same places has been discovered the head of a mammiferous animal intermediate between the genera *Anoplotherium* and *Palæotherium*, of the vicinity of Paris, but of which Mr. Henry Durand has, unfortunately, not sent the drawing; and, lastly, a tooth of a species of Mastodon, which closely resembles *Mastodon angustidens*, and which, if this resemblance were perfect, would be found in three divisions of the world, Europe, Asia, and America.—*Annales des Sciences Naturelles*, November, 1836.

## MISCELLANEOUS COMMUNICATIONS.

ON THE RISE AND DECLINE OF ART.—In A. W. Schlegel's *Lectures on Dramatic Literature* occurs the following passage :—"Perfection in art and poetry may be compared to the summit of a steep mountain, where a weight that has been rolled up cannot long maintain itself, but immediately rushes down the other side, without stopping until it has reached the bottom. In

its downward course, following the law of gravity, it proceeds quickly and easily, and, inasmuch as it follows its natural inclination, is a pleasing, whilst the laborious ascent is, in some measure, an unpleasing, object. Thus it is that paintings produced at a time when the art was on the decline afford far greater pleasure to the ignorant than those which preceded the period of its perfection." Here the comparison of the rise, height, and decline of an art, to the laborious rolling up of a weight, its short stay at the summit, and its easy and rapid descent, is, unfortunately, but too just; the reason, however, assigned for the greater pleasure derived by the ignorant from works of art in decline than from those produced when it is on the road to perfection, appears less so. The following will, perhaps, be found to be nearer the truth:—From the very circumstance of an art not having yet reached perfection, it follows that those engaged in its cultivation are striving after and actually obtaining an upward step in the ascent towards the summit of Parnassus—towards the attainment, in other words, of the most successful expression of ideal beauty and superhuman grandeur. In this pursuit all the minor accessories, such as minuteness of detail, excessive polish, and ornament for its own sake, are entirely overlooked, perhaps even estimated below their real value. But these are precisely the qualities which most easily captivate the eyes, ears, and understandings of the ignorant, and are those also which indicate the decline of that art in which they are discovered. After the highest imaginable sublimity and beauty has been reached, since it is impossible to stand still, we must descend from our laboriously-attained eminence; not, however, in the same direction as we came, for we now rush headlong down the opposite side of the hill; and the nearer we approach the bottom—that is, the more we cultivate the lesser excellencies above mentioned, to the neglect of those which are alone worthy of cultivation in the higher departments of the art—so much the more shall we come within the sympathies and capabilities of the vulgar and unenlightened. For multitudes stand gaping with stupid admiration at the bottom of the hill, but few only can appreciate the solitary grandeur which clothes its summit.—T.

**PECULIAR ORGANIZATION OF THE GREY CUCKOO** (*Cuculus canorus*, LINN.)—Mr. Levison informs us that he considers the extraordinary habits of the Cuckoo, as regards propagation, to result rather from a deficiency in the organ of Constructiveness than in the portion of the brain assigned to Philoprogenitiveness, which latter propensity he states to be amply developed in the head of this interesting bird. The habits of the species certainly tend to confirm this view of the matter; for it has been observed by Mr. John E. Gray, and others, that the Cuckoo frequently returns to the nest after having deposited its egg there, and the anxiety of the bird to obtain a proper receptacle for the egg is decidedly considerable; while, on the other hand, that the Cuckoo has never even made the remotest attempt at building a nest, is an incontrovertible fact. Mr. Levison's observations on the development of the Cuckoo's head were first alluded to by that gentleman in a conversation with his friend Dr. Spurzheim, and were communicated to us during a recent visit to Mr. L.—Ed.

**CHURCH MUSIC.**—It has been said, that the lower classes have, in general, no taste for harmony; and the little inaccuracies and blunders of self-taught musicians have been the subject of ill-timed merriment. But we

have not the slightest doubt but it is the want of support and patronage of the better informed, and not from incapability on the part of the performers, that prevents their attaining greater excellence than is at present the case. We can conceive no more efficient mode of raising church music—the highest style—to its proper eminence in England, than the judicious education of singers in country churches, either by professed musicians or amateurs. In every church there should be a good organ, and the salary of the organist should never be lower than £100., though at present we fear that few even of our cathedral organists are allowed more than this. There would then be some competition amongst real musicians to obtain so honourable a situation. But, of course, if the organist is to have a good salary, he must not expect to find his situation a sinecure. He ought to be required to instruct the choir at least three times a week, in singing psalm-tunes, anthems, &c. These ought to be selected from the sterling works of the old masters, as Purcell, Handel, Gibbons, Croft, and other true church composers. The ears of the initiated would not then, as at present, be tormented by hearing men with cracked voices singing through their noses, and, as a matter of course, out of tune. As long as there is an organ all goes on tolerably well, but without the assistance of this sublime instrument, each performer plays and sings according to his own fancy, *ad libitum*! If every country gentleman and clergyman were imbued with even a respectable taste for church music, and were willing to instruct those whom they deem their inferiors, this state of things would not long exist.—Eds.

**THE EVILS OF FASHION IN MUSIC.**—The two following extracts satirize admirably the absurd custom so prevalent among the amateurs of this country of buying any thing and every thing which they hear performed in public. The first is from an article by Dr. Hodges, in the *Musical World*:—“It is related of the far-famed Farinelli, that, on his first appearance in this country, in the year 1724, the effects which his surprising talents had upon the audience were ecstasy, rapture, enchantment! The first note he sang was taken with such delicacy, swelled by degrees to such an amazing volume, and afterwards diminished to a mere point, that it was applauded for full five minutes. There was, doubtless, in this case, a strong predisposition to be pleased: yet there must have been something extraordinarily fascinating in the performance of this single note to have called forth such unprecedented applause. Neither the composer nor the poet could by possibility have claimed much of it. It is, indeed, almost to be regretted that a singer has such power; for it has not invariably been exerted in a beneficial direction. Hence it has many times happened that, after an enraptured metropolitan assembly has been fascinated by the tasteful performance of some trashy composition, the whole country has been deluged with copies of a production only to be rendered *tolerable* by the exquisite performer with whom it originated. The detrimental effect upon the interests of science and taste may be presumed, in such instances, to be inversely as the pecuniary benefit of the singer and the music-seller.”—The next is an extract from a letter by an accomplished German musician, now in London:—“The compositions of Thalberg are of a lofty character, and bear eminent tokens of severe study: such, moreover, is their difficulty, that many public players would be incapable of getting through the notes, far more of executing them in the inimitable style of the composer. I must, therefore, confess that the present de-

termination of fashionable ladies to buy no music but that of Thalberg, appears exceedingly ridiculous. What use they can make of it—except to curl their hair—I am at a loss to imagine. It shows how small a share reason has in the musical predilections of the aristocracy; for besides the extraordinary mechanical difficulties with which the compositions of Thalberg abound, a power and energy scarcely to be acquired by two years hard practice is indispensable to give them due effect. Now, the aversion of the fashionable world to studies and exercises is notorious; Kalkbrenner and Hummel are characterized as too difficult both of comprehension and execution, and consequently are but little studied except by the professional musician. Yet he who is able to appreciate both these admirable composers, and to play their works with effect, has travelled but a small portion of the road necessary to enable him to render equal justice to Thalberg. But in London it would seem that every thing must bow to fashion. Poor Herz has now given way to a more powerful lion. Instead of this successive idolatry and neglect, how much more would a just appreciation of every composer according to his intrinsic merits be in accordance with the march of intellect in the nineteenth century.”—I fully agree with the sentiments of the above; it is, indeed, high time that fashion should be voted vulgar.—*From a Correspondent.*

EGGS OF THE MERLIN FALCON AND ORTOLAN BUNTING.—I am glad to see that it is your intention to continue the critical and analytical articles on Gould's *Birds of Europe*. To those who do not possess a copy of this splendid work, these notices must be valuable. I perceive the eggs of the Merlin Falcon (p. 78) and Ortolan Bunting (p. 79) are incorrectly described. Those of the former are very similar to the Peregrine Falcon's eggs. The second figure of Hewitson's plate (62) will illustrate the general markings, but they are much smaller, the egg scarcely exceeding in size that of the Kestrel Falcon. The eggs described in *The Analyst* are those of the Sparrow Hawk. The eggs of the Ortolan Bunting are not streaked, like those of the Yellow or Cirl Bunting, but are, for the most part, dotted; in this particular they differ from those of all the other Buntings. At least such is the case with my specimens, but possibly the marking of the eggs may vary in different nests.—J. D. SALMON, *Thetford, Norfolk, April 22, 1837*. [In the *British Oology* for May, 1837, two varieties of the egg of the Ortolan Bunting are figured with streaks, and one with dots alone.—ED.]

GRAMMAR.—“I now see clearly the advantage of paying little attention to the grammar till you have made some progress in the language. Instead of having both precepts and examples to learn, I need attend only to the general rules of what I have already seen in a variety of particular instances. It is examining the map of a country through which I have before travelled.”—GIBBON'S *Journal*. [We have always been of opinion that it is not only useless and tedious, but absolutely pernicious, in imparting language, to attend so minutely to those abstract rules in which thoughtless routine masters so delight. Depend upon it, grammar may enter the brain by a much less irksome process than “parsing,” “construing,” &c., however much we may be and have been ridiculed for the opinion.—EDS.]

THE CIRL BUNTING IN YORKSHIRE.—The Cirl Bunting (*Emberiza cir-lus*) has hitherto been supposed to be confined to a few of the warmer parts of the south of England; but we have seen a specimen, a fine female, in ex-

cellent condition, that was shot, on the 25th of April, 1837, in the neighbourhood of Askern, near Doncaster. It had three companions, but we are unable to say whether they were of the same species.—Eds.

**THE BRAKE NIGHTINGALE** (*Philomela lusciniæ*) IN NORFOLK. The Brake Nightingale is tolerably abundant in this part of the country, resorting to the thick underwood plantations and shrubberies. I have repeatedly heard half a dozen singing at the same time in a warm, still evening, when walking beside a favourite resort of the species, namely, a belt of underwood surrounding a park consisting principally of blackthorn.—J. D. SALMON, *Thetford, Norfolk, April 12, 1836.*

**A SHOWER OF BLACK WORMS.**—Some time since, during a snow-storm, a shower of black worms, wholly unknown to the agriculturists of the district, fell in the parish of Bamford Speke, Devonshire. They measured about three-fourths of an inch long.

**PHRENOLOGY AT NEW YORK.**—A friend has brought to us, from New York, *A Phrenological Chart, representing a Synopsis of the Science*, by O. S. and L. N. Fowler, assisted by S. Rishman, which is remarkably comprehensive and correct in its descriptions of the organs. The cuts are not so good. A handbill also announces "Lectures on Phrenology and Examination of Heads" at New York, commencing on the 12th of October, 1836, by Messrs. Fowler, who style themselves "Practical Phrenologists." They throw out the following challenge:—"The lecturers pledge themselves to demonstrate the *truth* of Phrenology in any and in every honourable way which the ingenuity of the incredulous may devise or propose. They throw out the challenge to opponents and disbelievers boldly, and without *condition or reservation*. They will meet opposition publicly, and on *any ground*; either by fair argument, or by an application of the principles of the science to the heads and skulls of animals, or to the heads of individuals selected by the audience, either with or without *their eyes covered*, and let Phrenology stand or fall by this test." From a variety of testimonials appended to this challenge, they seem successfully to redeem their pledges. The *Washington Mirror* of November 28, 1835, contains two letters by Mr. O. S. Fowler in defence of Phrenology, against an attack made on it by "Maxwell Macdowall, M.D., of Baltimore, in the *Baltimore Literary and Religious Magazine*." The letters are well and temperately written, and show a creditable knowledge of the science. We are glad to see so much ability, combined with practical skill, as these gentlemen exhibit. They announce a new organ, "whose function is to furnish its possessor with an intuitive knowledge of *human nature*, or to enable him readily to perceive the *state of mind* or feeling possessed by others, and thus successfully to adapt himself to, and operate upon, the minds and feelings of his fellow mén." The situation of it is "between the reflective organs upon the one side, and Benevolence and Imitation on the other." Mr. L. N. Fowler says he has made numerous observations and experiments upon it, and is disposed to believe in the above function. We presume that he means that the new organ is situated *above* Comparison and Causality, and *below* Benevolence and Imitation. We observe, certainly, that men whose foreheads are very high in that region—such were the heads of Shakspeare and Sir Walter Scott—have an extraordinary and almost intuitive talent of becoming acquainted with human nature; but we have hitherto regarded that configuration as indicating a large development of the ascer-

tained organs there enumerated, and have not yet had an opportunity of observing whether there are organs in this region hitherto unknown.—*Phrenological Journal*, vol. x., p. 510–11.

**THE DEANS AND CHAPTERS OF CATHEDRALS, AND CATHEDRAL CHOIRS.**—The shameful practices of the “great functionaries,” of the church in appropriating to themselves all the “tomb money” and other sources of income in the metropolitan cathedrals, to the almost total exclusion of the just claims of the choir, have been well “shewn up” in several recent numbers of the *Musical World*. These dignitaries, not content with immense incomes, must needs deprive others of their due, with the view of further enriching themselves. This accounts for the low state of the choir in our cathedrals, more particularly in the metropolis; it accounts also for the very moderate salary of the organist, and for his unwillingness to exert himself in the improvement of the choristers.—Eds.

**REPORTED RENUNCIATION OF PHRENOLOGY BY MR. G. COMBE.**—“TO GEORGE COMBE, ESQ. Sir,—A rumour having been prevalent here, during the past week, that you had renounced the principles of Phrenology as laid down in your *System*, which has now reached its fifth edition, I am requested by a circle of friends (who have read your different works on that science) to make the inquiry. I am induced to trouble you personally, as a line from you would place it beyond a doubt.—GEORGE FOURNESS, 28, High-street, Birmingham.” ANSWER.—“Edinburgh, 23, Charlotte Square, 12th of January, 1837. Sir,—I am favoured with your letter without a date, and hereby authorize you, not only to contradict the report which you mention, that I have renounced the principles of Phrenology, but to add that I have given up the profession of the law in order that, during the remainder of my life, I may be able to dedicate more time and exertion to the cultivation and diffusion of that science. Yours, GEORGE COMBE.”—*Phrenological Journal*, No. 51.

**THE BRAKE NIGHTINGALE (*Philomela lusciniæ*) SINGING IN NOVEMBER.**—“Two of these charming creatures were heard in Teignmouth, cheering the dulness of a November night with their melodious warblings, instead of “wasting their sweetness on the desert air.”

**THE FIELDFARE THRUSH (*Turdus pilaris*, WILL.).**“The caged Fieldfare Thrush which I before mentioned to you continues well, and is a perfect Garden Ouzel in his ways. He swallows about half his weight of haws every day, besides worms and bread and milk. It is a very handsome specimen.—EDWARD BLYTH, *Tooting*, December 21, 1836, in a *Letter to Neville Wood, Esq.*

**TAIT'S EDINBURGH MAGAZINE AND PHRENOLOGY.**—In the number of this excellent and widely-circulated periodical for March, 1836, p. 191–2, favourable mention is made of the phrenologists and of the lectures of Mr. Combe; but in a later number, in a review of Watson's *Statistics of Phrenology*, the science is ridiculed, and treated as if it had no more foundation in truth than astrology. Surely the Editor must have been dozing when he consented to mar his pages by the admission of such a critique.

**THE PROSPECTS OF GREEK AND LATIN.**—We have admitted that there was a time when a knowledge of the ancient classics was essential to a liberal education. But is that time to be interminable? Is the minority of the English language never to have an end? Is the period never to arrive



when that language will be so mature and independant of its parentage as to be prepared to set up for itself? The warmest advocate for Greek and Latin will pause before answering the question negatively. We doubt whether any one will so answer it. Within a century from this date, England will be the native tongue of upwards of three hundred millions of the human race. Must that immense population, whose number the mind is unable to grasp, still depend, and, notwithstanding its sudsequent boundless increase, still continue to depend, on Greece and Rome for their intellectual nourishment?—for their literature and their mental discipline? The fancy is preposterous. As well may it be contended, that they will derive from those spots of earth their corporeal food. No! they will have a language of their own, answering to all their wants, and competent to the manifestation of all their powers. In fact, with the slight restrictions heretofore mentioned, the English and their descendants have such a language now, and the time will arrive, when to oppose this opinion will be considered as much the result of antiquated prejudice, as to advocate it now is considered the work of a spirit of innovation. Nor do we hesitate to believe, that ages hence, when the Greek and Latin languages shall have been neglected and forgotten, English literature, in common with general and professional science, will be in a state of much higher perfection than it has hitherto attained. Greek and Latin are destined to become the Sanscrit of future times, known only to the antiquarian and the virtuoso; while English, in an improved condition, will be as lasting as our race.—DR CALDWELL'S *Thoughts on the Study of the Greek and Latin Languages*.

THE GRECIAN AND ROMAN SCULPTORS were celebrated for their nice imitation of Nature, but the heads of their gladiators and philosophers are always represented differently, in strict conformity with phrenological principles. They had never heard of Phrenology, yet they never once violated its principles, because its principles are founded in Nature, and they took Nature only for their guide.—*Philosophy of Phrenology simplified*, p. 26.

DOES THE ROOK CROW (*Corvus nudirostris*) EVER IMITATE THE NOTES OF THE DAW CROW (*C. monedula*)?—I do not think the Rook is guilty of ventriloquism; but I have often put the above query to myself when I have seen a number of Rooks pass over my head, and have every now and then heard the noise which I supposed to proceed from the Jackdaw, without being able to observe any difference in the size of the birds overhead.—W. C. HEWITSON, *Bristol, October 10, 1836*.

## OBITUARY.

In noticing the life and labours of the late Dr. Latham—a name which for half a century has been quoted as an authority in Ornithology, not only in England, but in every country where Natural History has been studied—we shall seem, perhaps, to some of our readers, to be recurring to matters out of date—the subjects of a former age. Perhaps there were not many, beyond the limited range of his personal acquaintance, who were aware that this celebrated naturalist was living, until very recently, at Winchester, where he was gathered to his fathers at the advanced age of 97.

A life, however lengthened, spent amidst pursuits such as those of our late venerable friend, is not likely to contain very much that is interesting to the world at large; yet we hold it to be our duty to place on record, to the best of our power, the few memorials which can now be gleaned of such a name as his.

John Latham was born June 27, 1740, at Eltham, in Kent. He was the eldest son of John Latham, a surgeon and apothecary of that place, who was descended from an ancient family in Lancashire. His mother was a descendant of the Sothebys, of Yorkshire. When eight years old he was placed at Merchant Tailor's school. Although his talents and acquirements gave a fair promise of his sharing the honors and advantages of that foundation, he was removed from thence at the age of fifteen, to prepare himself for his father's profession, to which the turn of his own mind strongly inclined him. He studied Anatomy under the famous Dr. William Hunter, and having completed his education at the London Hospitals and Schools of Medicine, he commenced practice at Dartford, in 1763, at the age of twenty two, and married in the same year.

Natural History must have engaged his attention and have been eagerly pursued by him from an early age; for as soon as Feb., 1771, we find him in correspondence with Mr. Pennant, who had just published his *British Zoology*. Mr. Latham having at that time himself made a considerable collection of zoological subjects, although a stranger to Mr. Pennant, was induced to communicate to him some matter, the result of his own observations, which he thought might be interesting to that gentleman. On this occasion Mr. Pennant replies, "It gives me inexpressible pleasure to have my poor endeavours to promote science approved by a gentleman so well versed in my particular study as you appear to be: receive my best thanks, and grant me the favour of your future correspondence." This correspondence was continued without interruption until the death of Mr. Pennant in 1799.

In 1772 Sir Ashton Lever introduced himself by letter to him as a brother collector, of whom he had heard so much, and proposed a correspondence for their mutual benefit. Sir A. Lever was not a man of our day, but his name is familiar to every naturalist, and the following letter, dated two months only after the first, will, we think, be interesting to our readers, making them acquainted with one trait at least of his character, while it is a distinguished testimony to the frank and liberal disposition for which the subject of our memoir was most strikingly remarkable.

"Alkington, Jan. 24, 1773.

"Dear Latham—Give me leave to call you by that familiar name, as I flat-

ter myself we shall be correspondents as long as we both live. Your very generous disposition suits me, and I shall be much mortified if I cannot make you proper returns for whatever you send me. You will allow me a little time, and I will do my best endeavours to pick some things out of this collection that will please you. The Manakins are the most elegant birds I ever saw, and your taste in the disposition of them is most exquisitely beautiful, you have set us on our mettle, as I tell you honestly I have not, among all my cases any so attractive to my visitors as these. \* \* To make my remarks on all the articles you have sent me would exceed the bounds of a letter; but this I assure you, I never received so generous a present from any one since I began to collect, though I have frequently had a right to expect great matters. Our friend, Mr. —, sent me the other day a cargo (having been a night or two with me, and expressed a vast desire to be one of my benefactors, and to appear in my Museum in print, a liberty I take of exhibiting the names of my assistants) and such trumpery as he sent me you can have no conception of. I have by letter told him my opinion, and that I would not have given five shillings for the whole. Now this gentleman expected to have come and spent a fortnight with me, and brought his drawer with him to have taken every subject he chose for the ornament of his publications. But I shall beg to be excused. Men of such narrow minds I like not. \* \* Pray, are you married? if not, I would recommend you to present a case or two to any lady you may desire to win, as the ladies here are quite captivated with your little case, and admire the taste of the disposer of the articles contained in it. I have a little wife who is quite in love with you, and insists on paying you a visit along with me. Let me know any particular subject you may want that may fall in my way to supply you with, as my inclination as well as my gratitude will always induce me to shew you how much

“I am, affectionately, yours,

“ASHTON LEVER.”

The following letter, from the same, is dated August, 1776:—

“*Dear Latham*,—Having plundered Amsterdam, Leyden, Harlem, the Hague, Rotterdam, Delph, Massensluys, the Brill, and Helvoetsluys, I am now returned to England: and in consequence of the above voyage, shall have more duplicates for you. You should see me as soon as you can, as I have wonderful things to tell you.

“Yours, with compliments to Mrs. L.,

“ASHTON LEVER.”

Before this date Mr. Latham had formed acquaintance with most of the leading naturalists and collectors of England. His acknowledgements to these severally have been placed on record by himself. Sir Joseph Banks in particular, when he found him disposed to arrange materials for a work on Ornithology, handsomely gave up the whole of his splendid collection of drawings and specimens for inspection and description.

In 1781, the first volume of the *General Synopsis* appeared, and was followed at irregular intervals by five others. A Supplement in two volumes completed the work in 1787. By the preface to this latter work, we find that he was then contemplating the *Index Ornithologicus*, and he published it in 1791. This last very useful work, written in what might, at that time especially, be called a universal language, was received with great applause

on the Continent. He was in consequence elected an honorary member of the Natural History Society at Berlin, and of the Royal Society at Stockholm; and the University of Erlang, unsolicited, conferred upon him the degree of M. D. The diploma was forwarded to him in the beginning of 1795. A compliment so handsomely offered could not but be gratefully felt by him, but he was unwilling to assume the title which it bestowed. Some of his friends, however, amongst whom Sir J. Banks was the foremost, insisted on addressing him from that time as Dr. Latham.

In 1796 he retired from business. The possession of a handsome fortune, almost entirely realised during a practice of two and thirty years, was the reward and testimony of his assiduity and success in the duties of his profession. And we beg the attention of our readers to the remarkable, the instructive fact, that in the leisure hours of these few years, by pursuits which constituted his relaxation and amusement amidst the fatigues of one of the most uncertain and most laborious of all professions, this indefatigable man contrived to establish a reputation such as few are fortunate enough to obtain by the uninterrupted employments of a whole life. When it is related, that, in addition to his voluminous correspondence with eminent naturalists and friends on the subject of his favourite pursuits, the inspection of museums, and taking drawings of specimens lent to him for the purpose, he etched every copper plate in his original work, stuffed and set up almost every animal in his very extensive museum, and put together with his own hands a great many of the very cases in which they were disposed, it is almost difficult to conceive how he could have been, as he certainly was, one, not only of the most punctual men of business, but of the most attentive to all the duties and courtesies of life.

Romsey, in Hampshire, was chosen for the place of his retirement. It was the residence of his only surviving son, and in the neighbourhood of his only daughter. Here he continued, with the same unwearied eagerness, the pursuits which he had always loved and which his leisure now enabled him to extend. The world knows him almost only as an ornithologist, but his acquaintance were accustomed to consult him as one ultimately versed in all the works of nature and of art; and his surviving relatives can shew that there is scarcely a department of Natural History which might not have been enriched from his original notes and manuscripts, and that many of the leading works of his day were deeply indebted to him for materials and revision. He was also a worthy member of the Society of Antiquaries, and the noble Abbey of Romsey supplied ample encouragement to an inquirer. At one time he intended to have presented to the world a history of this place, which he had actually completed on a very extensive scale; but he was deterred by the expense and risk of publication on a subject which possessed merely a local interest, except to a professed antiquary.

He had enjoyed a leisure of twenty years and more in affluence, when a series of calamities in his family not only caused him the severest distress of mind, but plunged him at the age of eighty into a state of almost utter destitution. Happily, a home was left him in the house of his son-in-law, W. N. Wickham, Esq., of Winchester. Thither he retired with his second wife in 1819. He was enabled to save some of the choicest of his books from the wreck of his property, and that placid disposition which characterized him

through life, aided, we trust, by higher hopes, enabled him to settle down, in the bosom of his daughter's family, into his usual habits and pursuits.

We find by a letter to Colonel Montagu, dated 1809, that he had then completed the reconstruction of his original work, with a view to a second edition. Some difficulties had occurred on the part of the booksellers, and it was postponed for the time. In 1811 he had revised, and largely augmented with notes and observations from this the ornithological part for M. Pennant's *British Zoology*, of which a second edition was published by his son, Mr. D. Pennant. But although he had thus drawn upon his own work, he had never relinquished the idea of republishing it himself entire, and had continued to add daily to his stores.

With the desire of withdrawing his mind from the painful events to which we have alluded, as well as with the hope of pecuniary advantage to him, his friends now pressed him to print by subscription the work which he had prepared. Accordingly, in 1821, he commenced the publication of the *General History of Birds*, and it was completed, in ten volumes, in about two years and a half. It was not likely, from the very nature of the undertaking, that he would add materially to his reputation by this late effort, but it was a curious and interesting spectacle, to see a man who had attained the 82nd year of a laborious and harrassed life, busily engaged in editing a work which demanded so large a space of time for its completion; and those who have witnessed him during that time, retouching the copper plates, with a steadiness of hand which is supposed peculiar to the prime of life, will not easily forget their admiration.

He lived nearly fourteen years after the termination of this task, without sorrow or suffering, beyond that which he has in his correspondence described as the *great evil* of old age—to become the survivor of those whom he had valued and loved in life. He was already a widower for the second time, and his only remaining child, Mrs. Wickham, died in the beginning of 1835. During this year he felt, for the first time, the failure of his eye sight. Infirmities gradually increased; but he was an active and cheerful man still—he took his daily walk alone—he scorned the assistance of an arm—and if any one was happy enough to ask for information on any subject which his library could illustrate, neither the distance of the room, nor the weight of the folio, deterred him from going himself to gratify his inquirer.

His end was rapid, but not unexpected—not the effect of disease, but of exhaustion—the taper burnt fairly out. Four days before his death he exhibited an unusual vivacity, and sprightliness almost unnatural; this was followed by a sudden failure of understanding—then of appetite—and he fell into a deep sleep of many hours duration, in which he expired without a pang, on the 4th of February, 1837. His remains are deposited in the Abbey Church of Romsey.

Dr. Latham was elected a Fellow of the Royal Society in 1775. He was the originator of, and took a prominent part in the formation of the Linnean Society, of which he was also a fellow from the beginning: and he became a member of the Society of Antiquaries in 1793.

The celebrated composer, Zingarelli, the author of *Romeo e Giulietta*, died lately at Naples, aged 87. He was chief director of the Royal Academy of Music of that capital.

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## METEOROLOGICAL REPORT.

## MARCH.

1837 Mar.	Barometer.		Thermometer.		Remarks.		
	Morn.	Even.	Max.	Min.	Day.	Night.	Wind.
1	29.900	29.935	37.5	28	Hazy, sun, cloud	Hard frost	N. E.
2	29.860	28.750	41.5	28	Haze, sun, snow, rain	Hard frost	N. E.
3	29.830	29.760	41.5	35	Hazy, cloudy, lt. wind	Cloudy	Northerly
4	29.645	29.665	45	34	Hazy, sun, cloud, breeze	Fine, cloudy	N. E.
5	29.535	29.370	45	30	Hazy, cloudy, showers	Clear	Northerly
6	29.440	29.522	41	37	Hazy, cloudy, sun	Cloudy	Calm, easterly
7	29.570	29.670	43	31.5	Fine, sun	Fine	Calm, vble.
8	29.702	29.592	44.5	31.5	Fine, cloudy	Fine	Calm, westerly
9	29.494	29.286	48	39	Fine, light showers	Fine	Fresh, westerly.
10	28.988	28.728		37.5	Showers, snow at night		Fresh, S.W.
11	28.702	28.724	44.5	31	Grnd. cov. sn.; cls., sun	Snow	Westerly
12	28.840	29.120	44	29	Hazy, cloudy		Calm, S.
13	29.398	29.780	39	28	Hazy, cumuli, fr. brze.	Hard frost	Northerly
14	29.892	29.848	41	28	Hazy, cumuli, fr. brze.	Hard frost	N. E.
15	29.710	29.612	37.5	31	Cloudy, dark, frsh. brze.	Fine	N. E.
16	29.612		38	34	Cloudy	Cloudy	N. E.
17	29.790	29.808	40	34	Cloudy	Cloudy	N. E.
18	29.756	29.642	38	33	Cloudy, cold	Cloudy	N. E.
19	29.572	29.504	39	32	Cloudy, cold	Cloudy	Fresh, E.N.E.
20	29.468	29.512	39	28.5	Snow shrs. fresh breeze	Hard frost	Fresh, N.N.E.
21	29.358	29.164	38.5	23 !	Lt. sno, hvy. sno in evg.	Hard frost	Northerly
22	29.204	29.240	34	28 !	Snow deep, cloudy	Hard frost	Light, souly.
23	29.181	29.168	34	25 !	Snow deep, cloudy	Hard frost	Calm
24	29.216	29.350	33	23 !	Snow deep, all sun	A little snow	Calm, S. E.
25	29.283	29.180	38	22.5 !	Sun, snow still covg. gr.	Hard frost	Northerly
26	29.232	29.360	38.5	31	Fine, sno. still covg. gr.	Fine	Northerly
27	29.473	29.4 0	40	23.5 !	Fine, sun, clouds	Hard frost	Northerly
28	29.340	29.238	41.5	32	Showers, and hvy. rain	Snow showers	Westerly
29	29.128	29.210	40.5	33	Clds., sno. lies in places	Rain	Westerly
30	29.251	29.352	41	28	Fine, sun, cumuli	Aurora	Northerly
31	29.416	29.426	43	27	Hazy, all sun	Clear	N. E.
Mean Max. 40.3			30.2 Mean Min.				

## APRIL.

1837	Barometer.		Thermometer.		Remarks		
April	Morn.	Even.	Max.	Min.	Day.	Night.	Wind.
1	29.398	29.417	48	30.5	Fine, sun and cumuli	Fine, clear	W. N. W.
2	29.406	29.180	45.5	28.5	Fine, sun and cumuli	Fine, clear	W. N. W. lt.
3	28.874	29.040	40	32	Snow, fine, cold wind	Snow	Westerly
4	29.108	29.206	39.5	30	Hazy, cloudy, cold	Fine, stars	Northerly
5		29.394	41	31	Fresh cold wind	Cloudy	N. E.
6	29.418	29.540	41	29	Snow, storms, variable	Fine, stars	Northerly
7	29.640	29.885	42	30	Rain and snow, fr. brz.	Aurora	Northerly
8	29.918	29.892	42	30	Snow showers	Cloudy	N. N. E.
9	29.868	29.788	37	26.1	Grnd. covd. with snow	Snow showers	N. E. fresh
10	29.652	29.354	38	24.5 !	Fine, clouds and sun	Hard frost	N. E. fresh
11	29.118	29.032	39	28.5 !	Hvy. snow in the evng.	Hard frost	Calm, Wrly.
12	29.150	29.318	36	30	Deep snow, clear	Snow	Calm, Estrly
13	29.406	29.442	37	29.5	Snow showers	Cloudy, frost	N. E.
14	29.402	29.270	47	32	Fine, hazy	Cloudy	N. E.
15	29.107	29.022	47	32	Snow in the evening	Cloudy	Srly, vbl., lt.
16	28.960		41	28.5	Cloudy, light snow	Hard frost	Northerly
17	29.250	29.414	46	29.5	All sun, fine		Northerly
18	29.454	29.488	50		Hazy, all sun		Northerly
19	29.448	29.384	52	34.5	Hazy, all sun		Calm, sthrly.
20	29.312	29.268	44	41	Showers, rain and hail	Clr., moon ecl.	N. Westerly
21	29.134	29.084			Heavv rain		Westerly
22	29.051	29.144	47	32	Cloudy, hazy	Fine	Northerly
23	29.086	29.070	48	35	Light rain, strong brze.	Cloudy	Northerly
24	29.160	29.299	53	38	Hvy showers, hail	Cloudy	Calm
25	29.332	29.254	53	38	Heavy rain	Clear, fine	S. W., light
26	29.286	29.300	58	42	Sun, cumuli	Cloudy	Westerly
27	29.194	29.232	56	36	Fine, showers	Light clouds	S. W.
28	29.130	29.054	50	42	Cloudy, light rain	Cloudy	S. W.
29	28.852	28.808	52	42	Rain	Cloudy	S. E. rly.
30	28.830	29.016	53.5	43	Fine, boisterous wind	Clouds & stars	Westerly
Mean Max. 45.6					33.0 Mean Min.		

## MAY.

1837	Barometer.		Thermometer.		Remarks.		
May	Morn.	Even.	Max.	Min.	Day.	Night.	Wind.
1	29.076	29.206	57	45	Cloudy, very windy	Shrs. & wind	S. W.
2	29.418		61	43	Fine, chiefly sun	Fine, cloudy	W. N. W.
3	29.316	29.240	62	43	Clouds, sun, lt. showers	Fine	Calm
4		29.490	57		Hazy, showery		
5	29.564	29.612	57	37.5	Fine, sun, cloud		
6	29.694	29.608	59	41	Fine, sun, hazy	Stars, fine	N. Easterly
7	29.540	29.412	52	44		Cloudy	Calm
8	29.294	29.172	54.5	42	Clouds chiefly	Showers	Northerly
9	29.152	29.160	46	33.5	Light snow, fine		Northerly
10	29.182	29.372	48	32.5	Haze, sun, lt. snow shr.	Clear	Northerly
11	29.494	29.400	54	35	Fine, cloudy, hazy		Variable
12	29.258	29.324	52.5	40	Fine, clouds, sun	Showery	Southerly
13	29.286	29.254	57	45	Fine, hail shower		S. W.
14	29.296	29.574	56.5	42.5	Haze, sun, cloudy	Showery	N. E.
15	29.684	29.752	56.5	42	Haze, sun, cloudy	Fine	N. E.
16	29.852	29.896	61	40	Hazy, sun	Clear	Northerly
17	29.852	29.750	68	48	Hot sun	Fine	Calm
18	29.744	29.734	52.5	49	Cloudy, showers		Northerly
19	29.674	29.640	48	38.5	Cloudy, fresh breeze	Cloudy	N. E.
20	29.550	29.376	49	40	Cloudy, cold	Fine	N. E.
21	29.268	29.316	51	42	Hazy, heavy showers	Cloudy	Light, vble.
22	29.380	29.474	53.5	37	Hazy, cloudy		N. E.
23		29.440	58	41	Sun and cloud		N. E.
24		29.320	61		Sun and cloud		
25		29.340	55		Light showers		Southerly
26	29.384	29.390	63	42.5	Fine, sun, clouds		S. W.
27		29.540	64	47	Fine, sun, clouds		S. W.
28	29.540	29.430	68	48	Fine, sun, clouds	Fine	S. W.
29	29.460	29.540		48		Fine	S. W.
30	29.562	29.600	62	44	Windy, fine	Fine	N. W.
31		29.510	65	46	Cloudy chiefly	Showers	Westerly
Mean Max. 57.0					42.0 Mean Min.		



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*W. H. Eldon.*  
25 NOV. 1916



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